

PROTECTING CONSUMERS IN The Next Tech-ade

:Tech-ade Blog

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FTC Reports from the Web 2.0 Conference, Day 3

Posted on [Wednesday 29 November 2006](#)

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The third day of the Web 2.0 summit emphasized the Internet's role in facilitating social interaction. The focus will be providing consumers with the tools needed to interact and share information easily, whether through social networking websites, video and music sharing platforms, news stories, or email. Also, speed is paramount to Internet users, even if it means less information. Marissa Mayer of Google discussed research showing that speed correlates with increased use of Google's services. Google therefore provides information to users in small, fast interactions. She predicts that the "need for speed" will drive innovations in browser support and mobile.

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[\(more...\)](#)

Filed under: [Uncategorized](#)

FTC Blogger @ 5:06 pm

[1 Comment](#)

FTC's Tech-ade Hearings Hosts a Technology Pavilion

Posted on [Thursday 16 November 2006](#)

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[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 6:41 pm

[3 Comments](#)

Richard Gingras of Goodmail Participates in the FTC's "Ask the Experts" Series

Posted on [Tuesday 14 November 2006](#)

A few weeks ago, we provided members of the public with an opportunity to ask Richard Gingras, CEO of Goodmail Systems, any questions they might have regarding email authentication issues. Goodmail is an email authentication service that certifies companies with legitimate email practices. Authentication, which involves verifying the digital identity of a user, has become a crucial component to keeping the web safe and secure as a global marketplace.

We received one comment but no questions, so we asked Mr. Gingras to answer some questions that we thought might interest the public. You can read his responses to those questions, and to the public comment we received, below. Please let us know your thoughts on this topic by submitting a comment in the box below this entry!

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"Email authentication" means assuring the identity of a sender, something that is surprisingly difficult in the world of email. Email authentication is the first step in stopping spam and its fraudulent cousin, "phishing." Today, the only positive identification of the source of an email is the IP (Internet Protocol) address, a series of numbers designating a machine's location on the Internet.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 3:00 pm

[No Comments](#)

FTC Reports from the Web 2.0 Conference, Day 2

Posted on [Thursday 9 November 2006](#)

And now for a summary of the second day of the Web 2.0 Conference. Please feel free to comment about any of the content.

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or down) in minutes. In addition, Amazon handles product fulfillment services on a variable cost basis – a “pay as you go” model. Generally, Amazon’s new services will significantly lower costs and time for starting Internet-related and other businesses, which is great for the market, but also could be misused by some to quickly perpetrate fraud. ([more...](#))

Filed under: Uncategorized

FTC Blogger @ 5:00 pm

[No Comments](#)

FTC Reports from the Web 2.0 Conference

Posted on [Thursday 9 November 2006](#)

The following is an entry from an FTC staffer who represented the agency this week in San Francisco, at the Web 2.0 Conference, which dealt with many of the same subjects that the FTC took up in the Tech-ade Hearings. Below is a summary of Day 1 of the Conference.

On November 7, the first day of the Web 2.0 Summit advertisers showcased how interactive media is changing their marketing to consumers, some companies talked about giving consumers more control of their data, and many expressed concern that the telephone and cable companies would restrict their access to the Internet. ([more...](#))

Filed under: Uncategorized

FTC Blogger @ 4:54 pm

[No Comments](#)

Closing Remarks

Posted on [Wednesday 8 November 2006](#)

Katie Harrington-McBride, the Coordinator of the Tech-ade Hearings moderated the closing remarks from Lydia Parnes, Director of the Bureau of Consumer Protection at the FTC and Tamás Andr  s Moln  r, Head of Unit DG SANCO at the European Commission.



Photos by: Karen Leonard, FTC

Parnes said that what struck her from listening to the hearings is how important

continued consumer education will be. Acknowledging that consumers can be increasingly savvy, Parnes added that many people are “overwhelmed,” and some people are being “priced-out” of accessing the new technologies. Furthermore, “consumer protection is international, there is no doubt about it.” ([more...](#))

Filed under: Uncategorized

FTC Blogger @ 6:40 pm

[1 Comment](#)

How to Make Sense of it All—Consumers’ Perspective

Posted on [Wednesday 8 November 2006](#)

Teresa Schwartz, the J.B. and Maurice C. Shapiro Professor Emeritus of Public Interest Law at the George Washington University Law School, was the moderator for the last panel of the Tech-ade Hearings, a discussion about how consumers are viewing new and rapid technological developments.

Jo Reed, National Coordinator for Livable Communities and Consumer Issues in Federal Affairs at the AARP, said that though older people are not as plugged in online as other populations, they are one of the fastest growing segments of the online population. The older population will be one of the most affected by privacy and security problems and have a great interest in protecting themselves online.

Next, Susan Grant, Vice President of Public Policy at the National Consumers League, said that the Hearings reminded her that “sometimes technology controls us and not the other way around.” The Hearings pose the question of how consumers should take control of privacy and security online without having to navigate complex policy and legal disclosures. Much of what consumers do with existing technology is not covered by the law, Grant said. ([more...](#))

Filed under: Uncategorized

FTC Blogger @ 6:38 pm

[No Comments](#)

Communicating with Consumers in the Next Tech-ade—The Impact of Demographics and Shifting Consumer Attitudes

Posted on [Wednesday 8 November 2006](#)

The first panel of the afternoon began with a video of consumers talking about how well they trust blogs and other websites. Those interviewed seemed to suggest that they liked to understand who was publishing the views on the website to establish that person’s credibility.

Carolyn Shanoff, Associate Director of the Division of Consumer and Business Education in the Bureau of Consumer Protection at the FTC, moderated the first half of the panel.



Photos by: Karen Leonard, FTC

William Strauss, Partner at LifeCourse Associates and co-author with Neil Howe of “Generations,” “The Fourth Turning,” “Millennials Rising,” and “Millennials and the Pop Culture,” began with an overview of the “Millennial” generation. He believes that today’s teens have a rising interest in the political culture and civic bodies. Attention to safety concerns and protection from the outside world have been part and parcel of the Millennials’ experience. Levels of achievement with this generation are rising, said Strauss. He believes that contrary to the assumption that the Millennials are tuned out, “these young people are more engaged and involved in interaction” than the older generations understand. Teenagers have gone from the least trusting age bracket in our society to the most trusting, and they trust the government more than their elders.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 6:37 pm

[No Comments](#)

New Products—New Challenges

Posted on [Wednesday 8 November 2006](#)

Commissioner William Kovacic began the second panel with a talk on how regulators should react in the face of increased product complexity. Such complexity poses challenges for the policy process, which tends to move slowly, said Kovacic. Market dynamism requires that an agency like the FTC keep abreast of technological changes and develop its own research and policymaking capacity. The agency also needs new policies to aid in its ability to fight new fraud. The Internet in particular has made fraud cheaper, said Kovacic, and therefore requires more enforcement and knowledge on the part of relevant government agencies.

Deirdre Mulligan of University of California Berkeley Boalt Hall School of Law moderated the New Products—New Challenges panel. The panel covered Digital Content—Access and Security and “Obsolescence,” the shift from analog to digital television. [\(more...\)](#)

Changes in Payment Devices and Systems

Posted on [Wednesday 8 November 2006](#)

Elliot Burg, Assistant Attorney General in the Consumer Protection and Public Protection Division in the Vermont Office of the Attorney General moderated the first panel in the morning, about new devices and systems for making payments in the next Tech-ade.



Photos by: Karen Leonard, FTC

Dr. Jean Hogarth, Program Manager in the Consumer Education and Research Section in the Division of Consumer and Community Affairs at the Federal Reserve Board started with an overview of new payment systems. She said that by 2005, 90% of consumers used some sort of plastic—credit card, debit card, etc.—to pay for purchases, that there has been a rise in online banking, a rise of third party pay systems, and a rise in usage of the speed passes and easy passes for subways and tollbooths. Do we need a different set of consumer protections for such easy pass cards, Hogarth asked, especially in the case of “unclaimed funds.”

[\(more...\)](#)

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EMI Group discussed the possibility of creating paid platforms where some music would be available for users to sample and mash-up. Music companies are struggling in the digital marketplace to devise ways that meet consumers' expectations and simultaneously protect artists' rights. A major hurdle that EMI identified is lowering transaction costs. Tens of millions of digital music transactions occur monthly, and each one has to allocate revenue among different sources.

On the programming side, NBC Universal, Slingbox, and Yahoo! discussed the multiple distribution channels available to view video when and where consumers want. The content owners, syndicators, and services that offer content downloads must figure out how to share advertising revenues.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Suzi Enders

July 11, 2007 | 9:42 pm

Good resource, plum full.
Thank you

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SlingMedia showcased their device that lets the user watch TV from a personal computer in any location.

Neuros Technologies showcased a media center that lets the consumer read and transfer movies or music from one device to another, such as from a television to an MP3 player.

Mantissa presented their identity theft protection software, and Network Appliance presented their data storage system.

Perhaps most popular was Moo-bella, a machine that produces ice cream of one's choice within minutes. Flavors include Pumpkin Pie, Cake Batter, and Pistachio and there are topping choices as well. In 45-seconds, the machine produces hard-packed ice cream in a cup, to the awe of many visitors to the Tech Pavilion.

img_6788.JPG



Photo by: Tony Brown/imijphoto.com

Lines gathered at the Moo Bella machine throughout the hearings, peaking at the lunch hour.

Other exhibitors at the Technology Pavilion included Alienware, Georgia Tech Information Security Center, Cingular Wireless, i-Mature, The Entertainment Software Association, The EnterTrainer, and Uncommon Projects.

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Edith Ambassador

November 28, 2006 | [4:19 pm](#)

This blog offers interesting and valuable information. How soon will the ice cream machine be available. Can it make low-fat ice cream?

rofovnifo

July 4, 2007 | [5:53 pm](#)

Hello

Looks good! Very useful, good stuff. Good resources here. Thanks much!

Bye

govokinolij

July 13, 2007 | [2:50 am](#)

Hello

Looks good! Very useful, good stuff. Good resources here. Thanks much!

Bye

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The Need for Email Authentication

"Email authentication" means assuring the identity of a sender, something that is surprisingly difficult in the world of email. Email authentication is the first step in stopping spam and its fraudulent cousin, "phishing." Today, the only positive identification of the source of an email is the IP (Internet Protocol) address, a series of numbers designating a machine's location on the Internet.

Unfortunately, due to the open architecture of the Internet, spammers can all too easily manipulate the IP address contained in an email by "bouncing" the message off other machines on the Internet on the way to its destination or sending emails through "zombies," personal computers infested with spam-spewing spyware. As well, not all senders use "static" IP addresses, but instead use "dynamic" IP addresses, which are assigned on a temporary basis. For these reasons, it is not possible to reliably identify the sender of an email based on the apparent IP address, and senders who deliberately wish to remain anonymous may do so.

Email authentication technologies were designed to allow senders to voluntarily pass identifying information above and beyond mere IP address to mailbox providers in a reasonably reliable way via the Internet. These technologies help mailbox providers more reliably determine the identity of the sender of a particular email who wishes to be identified.

Current Authentication Technologies

Two popular methods of email authentication today are Microsoft's Sender ID and Yahoo's

Domain Keys Identified Mail (DKIM), which permit a sender of an email to provide certain identifying information to ISPs[1] to help them determine whether an email is actually from the party who sent it.

Both technologies work by passing information to mailbox providers through the Internet. Sender ID allows senders to publish in their DNS record which IP addresses are used with particular domain names. Mailbox providers can access this information in an attempt to spot "spoof" emails, which would show an inconsistency between the purported sending domain and the IP address associated with that sending domain in the DNS record. DKIM on the other hand enables a system whereby a sender publishes a key (specifically, the public key in a public/private encryption key pair) enabling the recipient to validate the sender's signature in the email.

The Limitations of Authentication

Unfortunately, spammers and phishers can also take advantage of Sender ID and DKIM authentication techniques when sending email. For example, a phisher could use Sender ID and DKIM to authenticate messages coming from a domain – say, bankofamarica.com – which, while technically authenticated, is nonetheless fraudulent. While the email from "bankofamarica.com" might show the correct IP address in a Sender ID check, or have a valid key in a DKIM verification, and therefore show up as "authenticated" email, there is nothing within either of these authentication schemes to prevent the deliberate attempt to mislead unsuspecting consumers into thinking that a "bankofamarica.com" email is actually a "bankofamerica.com" email.

With mere authentication, there is nothing to assure the *legitimacy* of a sender – whether it is a phishing attempt or genuine – and indeed nothing that leverages the *reputation* of a sender – whether a sender follows acceptable email practices.

Goodmail: Authenticated and Certified

Goodmail provides a comprehensive trust solution, assuring both the authenticity and legitimacy of email marked as "CertifiedEmail." Goodmail begins by first *accrediting* only those volume sending organizations it deems to be legitimate (for example, "bankofamerica.com" but not "bankofamarica.com") and having a reputation sufficient to indicate that the sender practices good email behavior (that is, it does not send unsolicited email, resulting in a low complaint rate).

Once a sender is accredited, Goodmail's system – like DKIM – utilizes public key encryption. However, an important difference is that Goodmail's authentication requires that the email be signed by a third party – not the sender. Goodmail provides software to accredited senders that embed in each message a cryptographically secure token that can be read by the mailbox provider. Goodmail – which has pre-existing trust relationships with mailbox providers – thereby serves the role of "trust overlay," and the mailbox provider can afford certain privileges to incoming messages marked via the cryptographically secure token as "CertifiedEmail," and can identify such messages to consumers as both authentic and legitimate – that is, safe to read and act on.

In summary, the components of the Goodmail system include:

- Thorough sender accreditation prior to their admission into the program
- Real-time performance and security monitoring
- Assured message delivery
- Fully functioning links and images
- The CertifiedEmail trust icon in the list view and message view.

It's worth noting that these technologies are not mutually exclusive. A Goodmail sender can also sign messages with DKIM and publish appropriate information in its DNS records to support

Sender ID.

2. How does Goodmail's CertifiedEmail program work?

Each CertifiedEmail message carries a unique cryptographically-signed token. It allows Goodmail to track individual messages and ISPs to process messages with great efficiency. Goodmail's platform is an array of business processes and technology that rigorously accredits qualified senders, securely tracks each message, manages sender privileges and behavior, and reconciles message-level economics. The platform includes CertifiedUnsubscribe, a key component of a closed-loop feedback mechanism that measures sender performance and assures good sender behavior. ISP acceptance of CertifiedEmail demands the sophistication and rigor of Goodmail's safe email platform.

Each prospective CertifiedEmail sender is carefully accredited. Goodmail performs background checks to determine the accuracy of the information provided by the applicant. Goodmail also investigates an applicant's historical sending behavior – senders must have excellent sending histories with low complaint levels that meet performance criteria established by our ISP partners. A token volume quota (another security feature) is established for each sender.

Senders add CertifiedEmail tokens to their messages. Goodmail provides "imprinting" software that allows the sender to add a unique cryptographic token to each message. The token is signed by Goodmail – another security measure. This allows the ISP to easily and securely identify the incoming CertifiedEmail message and allows Goodmail to monitor the message traffic and maintain volume controls.

Messages imprinted with CertifiedEmail tokens are processed by ISPs and presented in the inbox bearing the CertifiedEmail trust icon. This is very important to convey to the recipient that the message is authentic and safe to open. Consumer research shows that more than 90% of consumers want a simple means of identifying a message as authentic.

Goodmail tracks and monitors feedback, complaints and unsubscribe requests on a message by message basis. Goodmail provides accurate and timely reports to senders. Goodmail will regularly provide senders with reports on complaint levels and invoke penalties or revoke privileges as necessary. Acceptable complaint levels are determined by Goodmail with its ISP partners.

3. What can businesses do to ensure that the email they send to customers doesn't accidentally wind up in spam folders?

Virtually all methods of spam filtering are prone to false positives, the mistaken identification of a good message as spam. Goodmail solves this problem with a deterministic model: if an email has a cryptographically secure token attached, the ISP takes certain actions definitively, such as forwarding directly to the server level inbox and bypassing content and volume filters. Goodmail obtains contractual commitments from ISPs in order to ensure the delivery of CertifiedEmail messages for senders who can maintain the high standards required by Goodmail.

Short of obtaining such a commitment from ISPs, there is no way to ensure that emails are not occasionally blocked or delivered to a spam folder. However, there are a number of steps to improve list hygiene that senders can undertake to increase their chances of inbox delivery, including:

- Removing an email address from a list after receiving a hard bounce from an ISP (i.e., a message stating that the email address does not exist);
- Quickly honoring unsubscribe requests;
- Complying with CAN-SPAM and any foreign analog, such as the European Union's emarketing directive;
- Avoiding content that is likely to be flagged as spam by filters.

4. Is it possible to fake a Goodmail certification? Has this been a problem?

There are two theoretical methods to fake a Goodmail certification: forging a token by breaking its cryptography or spoofing the CertifiedEmail logo in the body of the message.

Goodmail uses proven strong state-of-the-art cryptographic algorithms, as recommended by NSA and NIST. The implementation has been reviewed and audited by world-renowned experts. It is generally assumed that RSA-2048, the algorithm we use, will not be broken in the next two decades.

The second attack is much less onerous for the attacker and bound to happen. Bad actors will try to mislead recipients by faking the CertifiedEmail logo as an image within their message.

This attack is addressed in two ways:

- Education: users should learn to look for the CertifiedEmail logo only in the user interface of their email program – not within the message's body.
- ISPs block images for messages coming from untrusted source, making the spoofed logo invisible to the recipient.

5. What do you think are the key changes that we'll see in the coming 10 years in spam management?

We will see great emphasis on identifying the good mail rather than hunting for the bad. While anti-spam techniques have greatly advanced in the last 3 years, there is a lot of progress to be made in the arena of identifying good, wanted messages. The two techniques are complimentary and work together to achieve better accuracy.

6. Do you think that in next decade email will be supplemented by other communication methods (IM, or interaction through P2P applications), or supplanted by them?

IM, P2P applications and RSS will indeed become ever more ubiquitous, but email's role as a primary communication medium is safe. Email is a "push" application. Unlike RSS, the receiver doesn't have to constantly poll sources of information to inquire whether there's a message waiting. Unlike IM, email is asynchronous and thus less intrusive. Email doesn't require sender and recipient to communicate at the exact same time. Email is and will remain the Internet's killer application.

7. How would you respond to the following comment, received on our blog:

"Authentication [sic] is fine for web sites where you are transacting business. Authentication [sic] for email is useless. This would require each individual email user to go through the expense to validate their personal emails. The law MUST require [sic] ALL spam be labelled [sic] as spam."

The problem of spam is not just that individuals are receiving messages that they don't necessarily want, but that ISPs are receiving *far too many* messages – systems designed to process smaller volumes are now being overwhelmed, at a great cost to ISPs (and indirectly, the consumers who use them). AOL estimates that it blocks 3 to 4 *billion* messages per day, nearly 90% of the total volume it receives.

Authentication of volume senders is necessary to stem the flow of spam. Authentication of small volume individual mailers is not. We don't see a future where individuals will need to incur an expense to authenticate their personal emails.

As for enacting laws to label certain messages as spam, there has been much debate on this topic at all levels of government for several years. Creating this requirement is very difficult for several reasons. First, it is quite challenging to define "spam." One former FTC Commissioner

defined it as "any message that I don't want to receive at any particular time." Humorous as this may be, it illustrates the point that "spam" is an extremely subjective concept. Concise definitions are hard to come by.

Even if "spam" could be adequately defined, as many state laws attempted to do before CAN-SPAM was enacted in 2003, the labeling laws enacted in 2/3 of US states for unsolicited commercial email *were routinely ignored by spammers*. Quite simply, the same technology that enables spammers to hide their identities from ISPs provides them the anonymity they need to avoid prosecution under these laws. Prosecutions under state spam laws were exceedingly rare.

Notably, CAN-SPAM does require that a sender advertising a product or service by email provide a notice somewhere in the message that it is a commercial message. As everyone predicted when CAN-SPAM was enacted, spammers have routinely ignored this requirement. Respectable commercial brands who market by email, however, find it very easy to follow this simple commercial notification rule.

[1]Note: Throughout this document the term "ISP" and "mailbox provider" are used interchangeably. Technically an ISP (e.g., AOL) provides services including Internet access and typically email, whereas a mailbox provider (e.g., Yahoo!) may provide email services but not Internet access service.

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Adobe discussed working on a project with Mozilla to have its PDF and Flash applications execute in the browser. This type of open source collaboration leads to more secure computing for consumers.

Vinton G. Cerf and Robert Pepper debated the merits of net neutrality legislation. Because of less than robust competition in the broadband market, Mr. Cerf argues the need for legislation to protect consumers' choice and provide the ability to innovate. Mr. Pepper opposes the usefulness of legislation and believes continued adherence to the High-Tech Broadband Coalition Principles and regulation on a case-by-case basis will protect consumers and innovation in the marketplace.

In addition to net neutrality, lobbyists identified patent reform, digital copyright, and privacy as major issues for Web 2.0 companies. The industry complains that “patent trolls” and digital copyright laws are stifling innovation, and supports the need for reform. In terms of privacy, they argue that the Internet should receive equal treatment as collection of information from offline sources.

Finally, Ray Ozzie of Microsoft expressed that Microsoft's goal with Vista is to create an operating system that makes computers more safe. Because he predicts that most mobile phones in the future will be “smart” phones, he views mobile as the biggest opportunity for Microsoft in the future.

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FTC Reports from the Web 2.0 Conference

Posted on [Thursday 9 November 2006](#)

The following is an entry from an FTC staffer who represented the agency this week in San Francisco, at the Web 2.0 Conference, which dealt with many of the same subjects that the FTC took up in the Tech-ade Hearings. Below is a summary of Day 1 of the Conference.

On November 7, the first day of the Web 2.0 Summit advertisers showcased how interactive media is changing their marketing to consumers, some companies talked about giving consumers more control of their data, and many expressed concern that the telephone and cable companies would restrict their access to the Internet.

Web 2.0 generation companies have interest in opening data to their users and enabling them to edit and take it. For example, Eric Schmidt of Google advocates allowing users to export their data to other services. He believes that such a structure creates a strong disincentive against companies taking actions that violate their users' trust or jeopardize privacy. Google also envisions growth in search-centric and shareable platforms such as g-mail as a new way to manage information. Although other companies are reluctant to embracing the open data concept, they understand the importance of grappling with issues related to controlling and securing data.

Leading ad agencies and major brands have embraced the Internet. The benefits of search and analytics is important to their tailoring ads to smaller audiences and making their messages more personal. For example, Olgivy North America created a campaign for a skin product (Unilever's Dove brand) that engaged young women and teens in a conversation about body image. Advertisers also are interested harnessing the Internet to create what they refer to as a "viral effect." In some cases, others create the buzz on their behalf. For example, an Xbox ad that Microsoft rejected (because of too much violence) reached the Internet and gained a wide audience. In addition, advertisers are partnering with consumers to exploit quality user-generated content. Recently the Doritos brand introduced a contest that solicited user-generated ads for its product.

Net neutrality is an issue that resonates strongly with many of the companies represented at Web 2.0. Not surprisingly, media companies such as IAC/InterActive and New York Times Company and web service companies such as Google and Skype (eBay) expressed their support for some type of regulation preventing broadband providers from discriminating on price and/or restricting access.

In addition, Don Tapscott, a business strategist and author, presented compelling research on

the “Net Generation,” which is estimated to be 80M. He explains that customization, integrity, and speed are important to this generation. Panel interviews that Mr. Tapscott conducted are available at www.newparadigm.com.

Finally, Google, as well as Skype, foresee a market where mobile telephony is free and ad supported. And, millions participate in socially created gaming such as War Craft and Second Life.

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PROTECTING CONSUMERS IN The Next Tech-ade

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Closing Remarks

Posted on [Wednesday 8 November 2006](#)

Katie Harrington-McBride, the Coordinator of the Tech-ade Hearings moderated the closing remarks from Lydia Parnes, Director of the Bureau of Consumer Protection at the FTC and Tamás Andr  s Moln  r, Head of Unit DG SANCO at the European Commission.



Photos by: Karen Leonard, FTC

Parnes said that what struck her from listening to the hearings is how important continued consumer education will be. Acknowledging that consumers can be increasingly savvy, Parnes added that many people are "overwhelmed," and some people are being "priced-out" of accessing the new technologies. Furthermore, "consumer protection is international, there is no doubt about it."

Moln  r said that the international element of this event was illustrated by the fact that the same conversation could have taken place in Brussels. The number one priority for the EU is capacity-building, said Moln  r. "We understand that it is very important that consumer organizations have a more active role," in the coming years, Moln  r added. Another priority is enforcement.

Harrington-McBride relayed Commissioner William Kovacic's remarks that there should be "conveners" in the international community who bring everyone together to discuss all of these issues.

Harrington-McBride then suggested that perhaps such things as "persuasion technology" can be utilized at "the teachable moment" to advance consumer education, a proposition with which Parnes strongly agreed. She pointed to the FTC's website OnGuard Online as an existing example of this.

Next, Harrington-McBride asked what the stumbling blocks were for going forward as an international community to address the issues that were brought up at the Hearings. “Bringing collaborative law enforcement was...foreign to us,” Parnes said, chalking up one of the early obstacles to lack of experience convening with the international community.



Molnár said that collaboration between enforcement authorities has become an “obligation” in the EU. Parnes said that when the FTC started its international program it seemed “very daunting to us that our legal framework was different,” not the least of which is because “European perspectives on privacy and the U.S. perspective on privacy really are different,” but “our bottom line is the same, we really want to protect the consumers.”

The FTC is going to take a very careful look at the issues that were brought up in the Hearings, Parnes said. “The world is changing, consumers are changing,” said Parnes, and when the FTC convenes government representatives tomorrow, there will be big law enforcement and policy questions.

The remarks ended with a video about the “cyber patriot,” illustrating the mantra of the Hearings, that “the past is prelude,” according to Harrington-McBride. The memorable Revolutionary-era reenactor says he uses cell phones and laptops to convene and reenact the French and Indian War.

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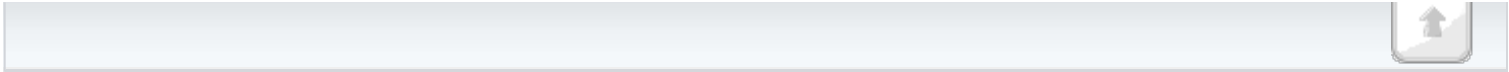
Anthony 

June 24, 2007 | 5:10 pm

Referer...

The only kind of dignity which is genuine is that which is not diminished by the indifference of others...

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How to Make Sense of it All—Consumers' Perspective

Posted on [Wednesday 8 November 2006](#)

Teresa Schwartz, the J.B. and Maurice C. Shapiro Professor Emeritus of Public Interest Law at the George Washington University Law School, was the moderator for the last panel of the Tech-ade Hearings, a discussion about how consumers are viewing new and rapid technological developments.

Jo Reed, National Coordinator for Livable Communities and Consumer Issues in Federal Affairs at the AARP, said that though older people are not as plugged in online as other populations, they are one of the fastest growing segments of the online population. The older population will be one of the most affected by privacy and security problems and have a great interest in protecting themselves online.

Next, Susan Grant, Vice President of Public Policy at the National Consumers League, said that the Hearings reminded her that “sometimes technology controls us and not the other way around.” The Hearings pose the question of how consumers should take control of privacy and security online without having to navigate complex policy and legal disclosures. Much of what consumers do with existing technology is not covered by the law, Grant said.

Dawn Rivers Baker, Editor-in-Chief of the MicroEnterprise Journal went next. Micro-businesses are essentially one-person business operations. Micro-business are “uber users” of the Internet, said Baker, so much of the discussion over the course of the Hearings is very important to them. She said that microbusinesses have faced problems with being able to get their foot in the door of such things as authentication technologies, because micro-businesses cannot afford the costs of getting authenticated. As a result, micro-businesses wind up getting their e-mail blocked.

The instatement of “net neutrality” would have a “really, really profound” impact on micro-businesses, said Baker. Otherwise “the fast lane is going to be reserved for the people who pay for it,” she said, and the Internet’s landscape “will go from whoever has the best content” to “whoever can pay for the best delivery.” It is important for the federal government and the FTC to have more of an awareness of micro-businesses, especially because these businesses have been fueled by the rise of the Internet, said Rivers.

Beau Brendler of the Consumers Union was back on this panel. “We need to constantly remind ourselves that consumers do not necessarily understand some of these issues as well as we do,” said Brendler. The health of privacy protection in the United States is unfortunately very low among countries in the developed world, said Brendler. He worried that “just about every site has a privacy policy, but I am not sure how many of them are useful to consumers.”

Brendler went on to identify more issues. "Consumer education is failing," and "consumers are besieged by choices." Consumers also have a hard time distinguishing between paid results in search engines and organic results, because they do not understand the business model of search engines. He also suggested that trustmarks have not had as much resonance with consumers.

Brent Embrey, Chief Counsel at the Indiana Office of the Attorney General, said that from his experience in law enforcement, the question for the next ten years will be about who you can trust online. Embrey recommends that companies that accidentally compromise customer information notify their customers right away. He anticipates that consumers and government will have to figure out how the consumer engages the government when they have a problem.

Next, Jerry Berman, President and Founder of the Center for Democracy and Technology, emphasized that the "open, non-discriminatory platform" where everyone can reach each other has been "the glory of the Internet" and ought to be considered in much more depth by the government. According to Berman, "companies have become comfortable with their self-regulatory regimes" and "consumer trust is not going to work on that alone." He emphasized that "consumers on the Net do not know who to trust," a problem that must be solved by legislation.



Photo by: Karen Leonard, FTC

He believes there has been a lack of effort in convening the Internet community to figure out what peoples' priorities are with the goal of creating a healthy Internet. The FTC should play the role of convening such a group, Berman suggested.

Schwartz asked the consumer representatives about the popular wisdom among the business representatives who took part in the hearings that the consumer is now king. The consumer representatives, however, seemed to believe that this was not always true, that consumers were not being well-informed and well-engaged by business. Grant said that the best examples of a consumer being empowered can be seen on user-generated web sites.

According to Berman, the difference between the Internet and past forms of telecommunications is that "no one has to ask permission to connect to the Internet." Commercialization of the Internet helped its growth and development, he said: "it was the commercialization of the Internet that has created this cornucopia of content."

Reed echoed the sentiment that disclosures online are currently not very helpful. To combat this, disclosures should be tested with consumers to see if they actually engage and understand the intent. Berman acknowledged that even as an Internet expert, he does not understand disclosures, which "are written by lawyers, for lawyers."

Brendler again went back to the issue of trust with the Internet, especially as far as

advertisements are concerned. “There is just a lot of pay-to-play material that gets put in front of consumers” that is not disclosed as such, said Brendler.

Schwartz ended the panel by commending the Tech-ade Hearings for bringing together people of “various expertise and experience and perspective to start what I think is going to be a continuing dialogue about what lies ahead.”

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PROTECTING CONSUMERS IN The Next Tech-ade :Tech-ade Blog

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Communicating with Consumers in the Next Tech-ade— The Impact of Demographics and Shifting Consumer Attitudes

Posted on [Wednesday, 8 November 2006](#)
The first day of the afternoon began with a video of consumers talking about how well they trust blogs and other websites. Those interviewed seemed to suggest that they liked to understand who was publishing the views on the website to establish that person's credibility.

Carolyn Shanoff, Associate Director of the Division of Consumer and Business Education in the Bureau of Consumer Protection at the FTC, moderated the first half of the panel.



Photos by: Karen Leonard, FTC

William Strauss, Partner at LifeCourse Associates and co-author with Neil Howe of "Generations," "The Fourth Turning," "Millennials Rising," and "Millennials and the Pop Culture," began with an overview of the "Millennial" generation. He believes that today's teens have a rising interest in the political culture and civic bodies. Attention to safety concerns and protection from the outside world have been part and parcel of the Millennials' experience. Levels of achievement with this generation are rising, said Strauss. He believes that contrary to the assumption that the Millennials are tuned out, "these young people are more engaged and involved in interaction" than the older generations understand. Teenagers have gone from the least trusting age bracket in our society to the most trusting, and they trust the government more than their elders.

He expects the Millennials to be at the forefront of “a re-norming and a civilizing of the online world.” Millennials are coming to reckon with the reputation stakes that are posed by posting public information about themselves on social networking websites like Facebook and MySpace. “What these young people are doing is often misunderstood by older generations,” Strauss said. “We’re not just educating them to be consumers,” he said, but rather to rise to the occasion when they will be called upon to use their trust in government and desire for improvement of civic institutions to be “the next greatest generation,” as he expects will happen.

Beau Brendler, Director of Consumer Reports WebWatch at the Consumers Union explained a study of consumers to see which websites they trust. Consumers tend to be attracted to color when putting their trust into a website, he said, especially blue websites. Experts, he said, look for more depth. Brendler said there is some concern that young people do not have as much trust in experts as older generations. This is not necessarily a bad thing, but it does seem to indicate that we are living in a “culture of the amateur,” he said.

Next, Scott Shipman, Senior Counsel of Global Privacy Practices at eBay, came on next to share his views on trust and impart why he believes eBay is so trusted by consumers. “Trust is really formed and fostered by communication and choice,” said Shipman, who said that nevertheless, trust does not mean “perfect security.” The key to trust then, is communicating clearly with consumers and providing consumers choices when problems happen. At eBay, feedback is crucial. Users give their feedback about purchases based on how well the product ordered matched the listing, fast shipping time, and so forth, a system that he believes is crucial to the strong consumer trust in eBay.

Solveig Singleton, Senior Adjunct Fellow at the Progress & Freedom Foundation and Expert at the Independent Women’s Forum, believes that institutions of trust are not going to falter in coming years, even though law enforcement will have a tougher time because of the diffuseness of their targets. Singleton believes that some of the Millennials’ behavior will change as they get older, especially because they will have to fund their lifestyles on their own rather than with their parents’ income.

The sheer number of small transactions online will be enormous. “There will be a lot more explicit trust services” offered online, Singleton further predicted, using PayPal as an example. E-commerce sites have an opportunity to watch what consumers do all the time, which becomes very tempting, but they need to be clear to consumers why they are trying to collect information from them, or else consumers will believe their privacy is going to be breached. Consumers make better decisions when they have more information, Singleton concluded.

Shanoff asked the panelists to give general advice. Strauss suggested that his generation trust Millennials and employ Millennials. Brandler said we need to talk to consumers outside of Washington and New York. Shipman said to embrace technologies of communities that are used by communities you are trying to reach. Singleton encouraged consumer protection in the form of appealing operations like games.

Next was another “man on the street” video asking people their views about their privacy on line. People complained about having to set up accounts on many sites they use, having their contact information distributed to all sorts of companies, not knowing who the merchants are, and fearing that they do not even know the extent of information floating around about them. “I don’t even know if I want to know,” said one respondent. On the other side, one respondent, who Googles most people that she knows, admitted the usefulness of employing Internet tools to find out about others. Another respondent believed that there is as much information floating around online as there is anywhere else.



Next, the Tech-ade audience was polled about what level of information they were comfortable with sharing online, from no personal information all the way to Social Security Number, date of birth, and Blood type. A majority said that they are fine with giving an address, phone number, and email address but not further.

Eileen Harrington, Deputy Director of the FTC's Bureau of Consumer Protection moderated the second half of the panel on Privacy—What Does it Mean (to Whom) in the Future. Dr. Helen Nissenbaum, Associate Professor in the Department of Culture and Communication and Faculty Fellow at the Information Law Institute at New York University began with a presentation. Nissenbaum laid down the theory of contextual integrity, which is based upon three foundations: “control over information by the data subject is not the holy grail, though it is part of a large picture..., the private-public dichotomy...is leading us astray,” and “we are squandering a wealth of social information.” She believes that people undergo a more complex equation than has been noted in assessing their privacy risks, comprising an evaluation of four factors: the context, parties involved, the type of information in question, and what are the conditions under which the information flows from one party to another. She recommends that those who are making policy ask these questions when looking at privacy regulation.

Harrington then introduced Joe Turow, Professor of Communication at the Annenberg School for Communication at the University of Pennsylvania and Chris Jay Hoofnagle, Senior Staff Attorney at Samuelson Law, Technology & Public Policy Clinic, at the University of California Boalt Hall School of Law. The two professors have done complementary research on consumers' concerns about privacy online.



Hoofnagle said that the FTC's main approach to the marketplace in the last ten years has been to encourage self-regulation. He said that there are many self-contradicting facets to consumer's privacy concerns: people care about privacy, they take action on preventing their privacy from being compromised, but they do not always read privacy notices.

Turow said that consumers see both business and government as threats to privacy. They tend to trust that websites with privacy policies will not share their information, which is a “basic misconception.” In fact, consumers’ misconceptions about their privacy on the web is based upon the assumption that their information will not be sold or disclosed to third parties by web merchants, banks, charities, and so forth. Furthermore, consumers have little clue about data mining.

Hoofnagle cautioned anyone from inferring that because consumers have misconceptions, that they are not concerned about privacy. In fact, they are concerned. Seventy-five percent of people surveyed in his study adopted at least one privacy protection strategy, even those “unconcerned” about privacy had adopted privacy protection tactics. He pointed out that privacy notices are written for the an audience of attorneys and therefore not read by average consumers—“we can only pay attention to so many issues in one day,” Hoofnagle gave as a reason for this. In the next Tech-ade, the FTC must enforce opt-in privacy policies, Hoofnagle concluded.

Peter Swire, C. William O’Neill Professor of Law at the Ohio State University Moritz College of Law spoke next. He agrees that markets can cure many failures, but he thinks an important job for the FTC is to figure out when these cures happen and when they do not happen and keep their eye out for instances that fit the rubric for when markets do not cure failures. He predicted that the FTC’s “non-legislative agenda” promoted by Chairman Muris and the general autonomy that the FTC has had on privacy issues may change with the new Democratic majority in the House. In particular, more emphasis on oversight may change how the FTC operates, said Swire.

J. Trevor Hughes, Executive Director of the International Association of Privacy Professionals went next. In emerging media, “indicators of trust”—which are crucial to helping consumers judge the reliability of a transaction—cannot be as readily interpreted in this digital, online age, said Hughes.

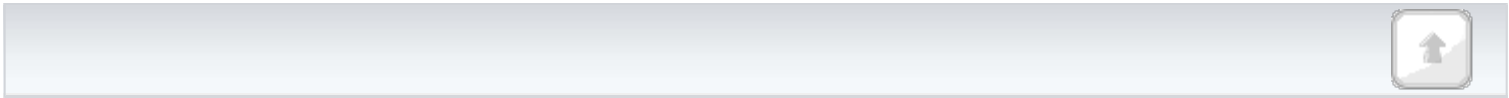
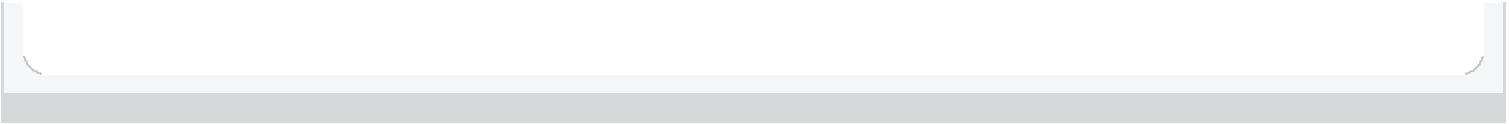
Shipman said it is important to distinguish between privacy and security, two concerns that often get incorrectly lumped together. “Security keeps out unauthorized users” a “baseline” of what everyone things should happen, said Swire. Privacy is more a matter of deciding what should be shared with marketers, affiliates, and so forth.

Finally, Eileen Harrington asked the panel what they thought the most pronounced challenges would be in the next decade.

Hughes responded that the rapid emergence of “inherently open” data flows and communications channels are worrisome, because we cannot catch up with them quick enough to prevent the fraud and abuse that we see. Turow worried about the “increased nichification of society and the electronic overlay of that.” “We’re moving into a world where there is going to be ubiquitous but silent tagging,” responded Hoofnagle. Nissenbaum concluded that she was “afraid that we will be in situations where we haven’t had the opportunity to resist some of the changes that have come about so quickly.”

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New Products–New Challenges

Posted on [Wednesday 8 November 2006](#)

Commissioner William Kovacic began the second panel with a talk on how regulators should react in the face of increased product complexity. Such complexity poses challenges for the policy process, which tends to move slowly, said Kovacic. Market dynamism requires that an agency like the FTC keep abreast of technological changes and develop its own research and policymaking capacity. The agency also needs new policies to aid in its ability to fight new fraud. The Internet in particular has made fraud cheaper, said Kovacic, and therefore requires more enforcement and knowledge on the part of relevant government agencies.

Deirdre Mulligan of University of California Berkeley Boalt Hall School of Law moderated the New Products–New Challenges panel. The panel covered Digital Content–Access and Security and “Obsolescence,” the shift from analog to digital television.

The panel first focused on Digital Rights Management (DRM), which is the use of technology to control who can distribute and execute digital files. Andrew Moss, Senior Director of Technical Policy for Microsoft Corporation, began. He expressed support for DRM, saying that it is “less about inhibiting flow and more about enabling access.” DRM is beneficial to consumers as well as corporations because of the advent of user-generated content online, Moss said. Because average consumers are now creating content, they too will have a stake in managing their own digital media and its distribution. Moss emphasized that we’re at a very early stage in figuring out how to use DRM, and that it is an effort to apply some control to all of the content that is being digitalized.

Current copyright law “provides a very limited set” of rights, said Mulligan, which allows consumers to enjoy a lot of uses of content that is not addressed by copyright law. An emphasis must be placed on consumer awareness of their access to digital media, its interoperability and the ability to copy it to other devices, she said. A survey of consumers showed a deep feeling that they should have the ability to copy a file from one device to another and that there should be interoperability of a file—that it should be made open to operate on many devices.

Dr. Urs Gasser, Director of the Research Center for Information Law at the University of St. Gallen, Switzerland, provided the international perspective on DRM, particularly on how Europe is approaching the interoperability question. He said that European Union member states have been working on bringing their national laws up to date with the EU-wide rules, which involves integrating the EU Copyright Directive into their national laws and conforming to the WPO Internet Treaties.

Gasser said that a few confounding questions confront Europe in its efforts. First, European regulators are trying to figure out how to square DRM with traditional copyright laws that give the consumer the right to make copies for private use; second, is the issue of fair compensation for content producers; third is the issue of interoperability, which has been identified as an “emerging issue” by the European Commission but has not been hashed out into any kind of “framework.” The EC is looking at copyright law, competition law, and consumer protection law to inform its approach to DRM interoperability.

In the area of consumer protection, several developments are occurring that may direct the EU’s stance on DRM. The Norwegian Consumer Ombudsman has been critical of the terms and conditions of Apple Computer’s iTunes program for “locking consumers into Apple’s proprietary systems.” A French court also fined EMI for failing to notify consumers that its CDs could not be played on car radios or computers because of digitally managed restrictions. Finally, the European Consumers’ Organisation is proposing that authorities be able to step in when unfair consumer contract terms are encoded for a product in relation to DRM.

Corynne McSherry, Staff Attorney at the Electronic Frontier Foundation, outlined a 2005 case against Sony BMG over its failure to disclose a DRM software program that it included with audio discs. The program automatically uploaded onto the computer. She also warned that content owners do not have the motivation to do the sort of security research that they should be doing. Mulligan pointed out that Sony essentially had been accused of operating like a spyware company and wondered whether a line should be drawn to eliminate business attempts to get consumers to download software that will change the user experience. Moss answered that drawing a fine line poses the risk of preventing future innovation and improvement to the consumer’s experience.

James V. DeLong, Senior Fellow at the Progress and Freedom Foundation, and a former FTC staffer, said he had a lot of faith in the consumer to punish companies. This could be seen even in the Sony case, because Sony’s product was quashed by bad press much more swiftly than it would have been through federal regulations.

Next, the panel discussed the impending obsolescence of analog technology and the transition from analog to digital television. Manuel Mirabal, President and Chief Executive Officer of the National Puerto Rican Coalition, said that most Americans are unaware that they will just have “snow” on their analog television sets beginning in February 2009 when the analog to digital switch officially takes place, unless they own certain devices, like a converter box, or have certain subscriptions. Minorities often own a fair number of televisions, said Mirabal, but are less likely to have digitally-operated television sets. He said that many of these people do not have the funds to upgrade to digital. Mirabal believes there is an important role that the FTC and FCC have to play, and they need to be ready for all of the phonecalls that will come in when people discover that their televisions no longer work as they did.

Jeannine Kenney, Senior Policy Analyst at the Consumers Union, called the digital transition “government-mandated obsolescence,” because the government is basically forcing consumers to adopt to a technology that they do not understand, and to give up one with which they are satisfied.

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Changes in Payment Devices and Systems

Posted on [Wednesday 8 November 2006](#)

Elliot Burg, Assistant Attorney General in the Consumer Protection and Public Protection Division in the Vermont Office of the Attorney General moderated the first panel in the morning, about new devices and systems for making payments in the next Tech-ade.



Photos by: Karen Leonard, FTC

Dr. Jean Hogarth, Program Manager in the Consumer Education and Research Section in the Division of Consumer and Community Affairs at the Federal Reserve Board started with an overview of new payment systems. She said that by 2005, 90% of consumers used some sort of plastic—credit card, debit card, etc.—to pay for purchases, that there has been a rise in online banking, a rise of third party pay systems, and a rise in usage of the speed passes and easy passes for subways and tollbooths. Do we need a different set of consumer protections for such easy pass cards, Hogarth asked, especially in the case of “unclaimed funds.”

She said there are five levels of usage by consumers of the new payment system: from non-users, who tend to be older and/or lower income to the “mega-users,” who are high-income, high educated, and tend to be middle-aged. Hogarth anticipates improved financial management, privacy and identity theft threats but said that there are still questions about the level of trust a consumer can place in payment systems.

Delia Rickard, the Regional Commissioner at the Australian Securities and Investments Commission gave a video presentation from Australia. She gave an overview of some issues in usage of payment systems, including whether a digital payment mechanism is a cash equivalent and whether you need a pin or biometric to access a payment system. Newer payment mechanisms bring up “philosophical” questions for regulators: they don’t want to be “heavy-handed” when approaching such systems, but they want to make sure consumer protection standards are in place when fraud and privacy concerns arise, Rickard said. One misunderstanding about new payment systems is that personal data stays on a device when in fact, information just passes through the single payment device to be stored in the central system. This is similar to older systems, Rickard pointed out.

Jean Ann Fox, Director of Consumer Protection at the Consumer Federation of America said that the development of new payment systems has generally been followed “by enforceable consumer protection law,” but that recently “consumer protections have not kept up with the plastic proliferation.” She said that there are different sets of protections and rights for different types of cards, which makes it difficult for consumers to know their rights. “We need to harmonize consumer protections” among different devices, Fox said. Paul Tomasofsky, President of Two Sparrow Consulting, said that he looks at the level of confidence when he judges good payment devices.



There were three presentations that came next on devices and systems.

Mark MacCarthy, Senior Vice President for Public Policy from Visa U.S.A. went first to talk about contactless payment systems and the industry landscape. MacCarthy agreed with Fox that harmonizing consumer protection laws across payment systems would be a good idea. He emphasized that credit cards are all very safe to use, and fraud has been on a downward trend for the last couple of decades, because credit card companies have invested in anti-fraud technology.

He said that contactless payment systems—for instance, when a credit card can be read without being swiped into a machine—are beneficial for consumers because they are fast and convenient, for merchants because they speed up checkout lines, and for issuers because they win increased loyalty and get extra volume. Contactless cards are not operated on a long-range

RFID system, MacCarthy assured, so information is not floating out there. He predicted that contactless cards will move to keychains in a couple of years.

David Turner, Director of Standards for the Mobile and Embedded Devices Division at Microsoft Corporation, said that there are five different ways for transferring one's payment identity information, including speaking it to a merchant over the telephone or scanning it in a card reader at a store. The main issue to emphasize for the future is "the distinctions between the payment identity that you use and the protection and services that you get from that payment identity," said Turner. He pointed out that new payment technologies do not have the same "back-end" relationships with banks and vendors as older ones, and therefore are on shakier ground for recourse when there is fraud. Microsoft's goal in all of this is to help provide software that enables the security of a payment identity, no matter how it is transmitted to the merchant, said Turner.

James Linlor, Chief Executive Officer of Black Lab Mobile talked about the use of mobile devices to make payments. He pointed out that as yet, no hard goods are being purchased through cell phones, but in the future, cell phones should be used to do everyday, point-of-service transactions. Today, mobile payment systems allow person-to-person and person-to-business money transfers, and can be used for some transfers, like ringtones and paying for parking at the airport. He thinks that there will have to be a greater security interest by mobile phone companies in securing mobile payments are protected.

Burg asked the panel about privacy and security issues in new payment systems. "Financial incentives are set up so that if you don't do security right, the product won't succeed," MacCarthy answered. Burg asked what would happen if there were unauthorized purchases made on his cell phone. MacCarthy said that if it is a transaction provided by Visa, he would have consumer protection, but that a transaction made through the mobile phone companies, like a ringtone, does not provide the same sort of recourse.

Burg asked the Discussants, Fox and Tomasofsky, what they thought about those responses. "This is fun," responded Tomasofsky, "I get to decide whether I want to pick on Visa or MS." He chose Microsoft: "the perception is that Microsoft and security are not really hand and glove, so how does a company like Microsoft that wants to get into evolving payments deal with the perception versus the reality?" he asked Dave Turner. Fox expressed concerns with contactless payment and the smaller, keychain payments could more easily get lost and also questioned the security of mobile payment systems.

Linlor responded that Visa is involved in payments that are transmitted on mobile phones, and that he "doesn't believe that anything"—any payment information—"is not broadcast around." Turner assured that Microsoft knows that if they "do not provide systems that are fundamentally as secure as they need to be, we will not be in business."

Next the audience was polled on which of the following payment devices they most wanted to use. The choices were contactless credit cards, mobile phones, fingerpring, traditional credit cards, or cash. Credit cards won out against the new devices, with 39% of the audience respondents.

The panel moved onto Solutions for Protecting Identity. Mark Kirshbaum, President of Experian Fraud Solutions went first to talk about what is being done to protect and prevent fraud. He pointed out that incidents of identity theft are leveling off or declining, "the message being that there are tools being used in the marketplace that are actually working." He believes that this owes credit card companies using third party fraud screening models. Next, Kirshbaum talked about the importance of authentication—"making sure that I am who I say I am." He said multiple factors of authentication should be used together to best protect privacy and security. Fraud scoring can also be used in the future of authentication.

Next, Elliott McEntee, President and CEO of NACHA went next to explain how to keep one's account private. His company, NACHA, writes the operating rules for direct deposit and enables new payment products like online bill payment. He said that the problems with Internet payments are that consumers must disclose sensitive account number information and that account numbers are compromised, leading to negative consumer reaction and fraudulent transactions.

He said the solution is to create a new service that prevents the consumer from ever having to disclose their account information to the merchant party, that is, the merchant does not see the exchange going on between the consumer and the consumer's bank. When making a payment to the merchant, the consumer is directed to his bank to authorize the payment, preventing the information from ever being disclosed to that merchant.

The panel turned to discussion of authentication and general fraud prevention. Biometrics will have a place in the new payment systems for authentication, said Kirshbaum. The government, corporations, and end consumers through some trusted organizations are using it. He said authentication of the biometric traits is crucial to ensuring the success of biometrics. Biometrics itself is not a payment system, said McEntee, it is rather the means of authenticating the payee. The problem with biometrics is that there is greater consequence if consumer's physical information is disclosed, Linlor said, as opposed to a credit card account number or social security number. An account number can always be changed, but you can't cut off your finger, Linlor said.

Burg concluded by worrying that consumers are "completely confused by what their protections are, what happens if there's an unauthorized purchase, what happens if there's a theft," and he suggested that "we need a grand, unified theory here" and a private-public partnership to educate consumers on various protection issues. "The state of knowledge in this area is pretty low," he ended.

"We need to be clear about who's doing the protecting," said Fox. Even if private solutions are useful and effective, we need law and enforcement to go forward for everyone's benefit. Tomasofsky said the question for the future of these products is what's the compelling reason why consumers should use a new payment system. The consumer needs to see a clear benefit to change over to a new system, he said. Hogarth warned against "stifling creativity" and pointed out that the balance is always between innovation and protecting consumers.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

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Convergence and What it Means for the Coming Tech-ade

Posted on [Wednesday 8 November 2006](#)

Gregory Sidak, Professor at the Georgetown University Law Center moderated the last panel of the day. He began by asking what panelists foresee in convergence.

Sarah Deutsch, Vice President and Associate General Counsel at Verizon Communications, sees challenges in ensuring that broadband will grow without unnecessary regulation and without compromises to privacy.

Gigi Sohn, President and Co-Founder of Public Knowledge said that there will never be one device that encompasses all converged technologies. She said we need to figure out how to make copyright law—which has not been changed since the 1960s—conform to today's world, where people are embellishing, re-contextualizing, or mixing older content to create their own content. Sohn suggested that disclosure of limits on digital files will be important in preventing content from being stolen. "Net neutrality"—preventing web broadcasters from favoring some content over others—will also be important to facilitating good convergence. ([more...](#))

Filed under: [Uncategorized](#)

FTC Blogger @ 11:58 am

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RFID Technology in the Next Tech-ade

Posted on [Wednesday 8 November 2006](#)

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RFID provides the capability for a central reader to recognize tagged objects without a line of sight that is necessary with barcode technology. Smith presented a bracelet RFID reader that can recognize items that are tagged—such as a toothbrush and toothpaste—to monitor the activities of an elderly person. Such technology has promise

for long term care, aiding a family member in monitoring the health and activity of an older relative and minimizing the time it takes to do so, said Smith.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 11:56 am

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Computing Power and How it Will Be Used in the Marketplace of the Next Tech-ade

Posted on [Tuesday 7 November 2006](#)

Dr. Mark Bregman, Executive Vice President and Chief Technology Officer of Symantec moderated the first afternoon panel. he introduced Dr. Eric Horvitz, Research Area Manager at Microsoft Research, who began with the subject of Artificial Intelligence. Horvitz anticipates an “evolving relationship with computation.” Systems will become more sophisticated and will operate by motion and speech detection rather than direct contact between user and device. There will be a “shift of high-quality expertise and services to the consumer,” meaning that computation will allow consumers to access and communicate with expert information. This will be propelled by artificial intelligence which will be facilitated by advances in developing the sophistication of how the computer learns.



Photos by: Tony Brown/imijphoto.com

Horvitz is also seeing a proliferation of “intention machines,” machines that can compute what the user is likely to do in the future. One such example is a web search, but even more comprehensive are GPS trackers that Microsoft has tested and found can be used to figure out where someone is heading soon after that person starts driving. [\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 6:41 pm

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Marketing and Advertising in the Next Tech-ade

Posted on [Tuesday 7 November 2006](#)

Commissioner J. Thomas Rosch began the second panel of the morning with remarks via video about his experience at the FTC in the 1970s. “Privacy and data security weren’t even on the horizon,” back then, Rosch said. Even in the mid-1990s, when the

FTC held their first comprehensive hearings, "The Commission didn't see coming a number of things that affected consumers and their welfare," such as spyware and spam. The future of consumer protection requires identifying the relevant technologies, Rosch said. Broadband, for instance, will continue to be important as well wireless technology and the "freedom" that it offers. "Issues that we are grappling with now and have grappled with in the past," are still covered by the FTC's "traditional" methods of law enforcement, said Rosch. The agencies efforts to educate policymakers will be as important as its effort to educate consumers in the coming years. Rosch encouraged Congress to work to get the US Safe Web Act passed so the FTC can fight the globalization of bad web practices. ([more...](#))

Filed under: Uncategorized

FTC Blogger @ 2:23 pm

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Benefits to Consumers of Living in an Instant Information Culture

Posted on Tuesday, November 7, 2006

Lee Ranie, Project Director of the Pew Internet and American Life Project, moderated the first panel of Day 2 of the Tech-ade Hearings. He started off the morning with a poll to the audience on how they use Internet retail websites. Most respondents use them for actual purchases, but many others use them for product research.



Photos by: Tony Brown/imijphoto.com

([more...](#))

Filed under: Uncategorized

FTC Blogger @ 11:44 am

[No Comments](#)

User-generated Content - What Does it Mean for Consumers and Marketers?

Posted on Tuesday, November 7, 2006

The last panel of the day, on user-generated content was moderated by Esther Dyson, Editor-at-Large at CNET Networks. The panel brought together perspectives from operators of user-generated websites with those of academics.

Amanda Lenhart, Senior Research Specialist at Pew Internet and American Life Project, began. Seventy-three percent of Americans are online, and 60% of users have broadband, she said. Lenhart defined user-generated content in basic terms, as "anything that is produced by the user." Blogs, photosharing sites, video sites, social

networking sites, wikis, dating sites, sites where users tag or items/people/services, and classified ad sites are all user-generated. Income level is less determinative of who will create content online than is broadband access, and members of the younger population, especially teens, are especially involved and familiar with creating web content. "The thing to remember about blogs...is that it's actually not that big of a deal in a lot of their lives," said Lenhart.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 10:35 am

[No Comments](#)

Social Networking-Trends and Implications for the Future

Posted on [Tuesday 7 November 2006](#)

FTC Commissioner Pamela Jones Harbour introduced the panel on social networking trends and their future implications. Social networking websites offer teens and "tweens" an exciting new communications opportunity, but they also pose risks for young users. The FTC is "committed to providing a safer online experience to children...through consumer education and targeted law enforcement," said Jones Harbour.



Photos by: Tony Brown/imijphoto.com

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 10:08 am

[No Comments](#)

How Will We Communicate in the Next Tech-ade?

Posted on [Monday 6 November 2006](#)

Gary Arlen, President of Arlen Communications, introduced the first panel after lunch by asking where the next generation would go with new technologies. He introduced five "Millennials," all students at The George Washington University. Millennials are approximately college-aged students who are considered some of the most technologically-savvy members of the population.



Photos by: Tony Brown/imijphoto.com

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 6:48 pm

[No Comments](#)

The Changing Internet

Posted on [Monday 6 November 2006](#)

FTC Commissioner Jon Leibowitz introduced a panel about the changing internet. He encouraged Congress to pass an act against spyware to give the FTC authority to seek civil penalties, similar to the CAN-SPAM Act.



Photos by: Tony Brown/imijphoto.com

Wall Street Journal Technology Columnist Kara Swisher then moderated a panel on "The Changing Internet." She introduced Susannah Fox, Associate Director of the Pew Internet and American Life Project, who began by explaining that many people, especially among certain demographic groups, do not have Internet access. [\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 5:24 pm

[1 Comment](#)

Key Changes Predicted in the Next Tech-ade

Posted on [Monday 6 November 2006](#)

Lydia Parnes, the Director of the FTC's Bureau of Consumer Protection introduced the guests on the first panel, "Key Changes Predicted in the Next Tech-ade.



Photos by: Tony Brown/imijphoto.com

Dr. Frederick Hollmann, Demographer in the Population Projections Branch, Population Division of the U.S. Census Bureau, began with a presentation. He outlined several socio-demographic trends in the United States: years of education have increased, the participation of women in the labor force has increased, there have been steady increases in "unconventional" and multi-generational households, a demand for healthcare is on the rise, and the foreign-born population grows steadily.

[\(more...\)](#)

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FTC Blogger @ 1:44 pm

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PROTECTING CONSUMERS IN The Next Tech-ade

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[Changes in Payment Devices and Systems](#) »

Convergence and What it Means for the Coming Tech-ade

posted on [Wednesday 8 November 2006](#)

Gregory Sidak, Professor at the Georgetown University Law Center moderated the last panel of the day. He began by asking what panelists foresee in convergence.

Sarah Deutsch, Vice President and Associate General Counsel at Verizon Communications, sees challenges in ensuring that broadband will grow without unnecessary regulation and without compromises to privacy.

Gigi Sohn, President and Co-Founder of Public Knowledge said that there will never be one device that encompasses all converged technologies. She said we need to figure out how to make copyright law—which has not been changed since the 1960s—conform to today's world, where people are embellishing, re-contextualizing, or mixing older content to create their own content. Sohn suggested that disclosure of limits on digital files will be important in preventing content from being stolen. "Net neutrality"—preventing web broadcasters from favoring some content over others—will also be important to facilitating good convergence.

Sidak wondered whether we are moving from telecom-related policy debates to the Microsoft debate, which was over the issue of convergence of operating systems. Fritz Attaway, Executive Vice President and Washington General Counsel of the Motion Picture Association of America pointed out that content—movie and television programs—are software nowadays, that is, they are digital files.

Dan Brenner, Senior Vice President for Law & Regulatory Policy of the National Cable & Telecommunications Association, and Development wondered why on YouTube, there has been very little effort to get content that infringes on copyright taken down. Sohn responded that use of prior content in a new, creative light should not be subject to a lawsuit under copyright law.

"The law is fine, what needs to change is the marketplace," responded Attaway, who believes that "marketplace ways" need to be found to let consumers use copyrighted content. Users do not know exactly how they can use intellectual property, noted Taylor Reynolds, Communications Analyst of the Organization for Economic Cooperation, and he believes there should be efforts to educate or notify them about what is allowed.

Ten years ago, YouTube would have been shut down, Deutsch suggested. Now, people are looking at how YouTube can be "cleaned up" to conform to copyright laws but still flourish as it has up to this point.

The discussion moved on to broadband access and availability. In the United States, there is

competition between cable and DSL for enabling access to the Internet, Reynolds said, but there is not competition among providers of either cable or DSL, in contrast to Europe.

Sidak wanted to know how to get away from “the silo model of regulation that the FCC has used for decades” in the realm of antitrust law. The advantage of antitrust law, according to Brenner, notwithstanding the problems in settling the Microsoft case, is that “at least you have a set of facts where you can define the problems.” In D.C., the policy debate too often anticipates things that have not happened, added Brenner. “I don’t wait for the rain to come before I go out and fix the roof,” responded Jim Kohlenberger, Executive Director of the VON Coalition, suggesting that anticipating future developments in convergence must be established to understand implications for the law .

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Henry L. Tillman (ITEC)

November 9, 2006 | [11:02 am](#)

With regards to the comments made concerning YouTube:

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Senior Vice President for Law & Regulatory Policy
of the National Cable & Telecommunications Association,
and Development

“wondered why on YouTube, there has been very little effort to get content that infringes on copyright taken down.

...

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“Now, people are looking at how YouTube can be cleaned up to conform to copyright laws but still flourish as it has up to this point.”

Key Word: Flourish

...

Sohn
“responded that use of prior content in a new, creative light...”

Key Word(s): (Creative) Light

Large “copyright holding” companies have in many cases taken a “second look” at the way this “23 month old” upstart has “Flourished” and “Flourish” is an under statement “explosion” might be a better word.

The incredible surge of YouTube’s rapid success and popularity in a very anemic “Dot.Com” environment is one of the many things that differentiate it from Napster.

The observation that YouTube appears to be “more than” bending over backwards to “rapidly appease” complaining “copyright holding” companies as opposed to Napster which seemed to have taken a somewhat more defiant stance against copyright holders.

It also appears that the “vast majority” of YouTube’s “material” if you will is “NOT” of a “copyright” nature and I believe in the case of Napster it was the “exact

opposite”.

And with regards to “Creative Light” large “copyright holding” companies (to coin a cliché) “are beginning to see the Light”.

NBC first demanded that YouTube pull the “Lazy Sunday” video from it’s site but after looking at the “enormous” numbers the hilarious comic sketch drew NBC and YouTube cut a deal “to allow YouTube users to post content from NBC programs”.

Warner Music followed suit ...as did Universal Music Group ...as did Sony BMG Music Entertainment ...as did CBS ...

Not to mention the “1.65 Billion” dollars Goggle just paid to purchase YouTube ... and these developments are happening in “weeks” not “years”.

Will this “frenzy” continue? Who can tell...

Large prestigious Research Firms such as “Forrester Research” and “IDC” have “Predicted doom for YouTube’s business model”

As stated in the article “...more than a year since YouTube was founded, executives have yet to roll out a business model.”

One of the things these analyst seem to be missing is that YouTube is not so much based on a “Classical” Business Model as it is a “User Model”.

as stated by “Charlene Li, (also)
an analyst at Forrester Research in San Francisco”
From a Chicago Sun Times article
Saturday, October 7 2006 (on Page 27)
Written by Jonathan Thaw

“It totally makes sense. The biggest problem Google Video has had is that they started with
business plan not a user model.”

My guess is that the Doomsayers are dead wrong (at least for the next two to five years — which is a long time in the Tech/Internet World) and you are only looking at the tip of the iceberg.

Henry L. Tillman
(ITEC)
Information Technology Expert Consultant

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PROTECTING CONSUMERS IN The Next Tech-ade

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RFID Technology in the Next Tech-ade

Posted on [Wednesday 8 November 2006](#)

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RFID provides the capability for a central reader to recognize tagged objects without a line of sight that is necessary with barcode technology. Smith presented a bracelet RFID reader that can recognize items that are tagged—such as a toothbrush and toothpaste—to monitor the activities of an elderly person. Such technology has promise for long term care, aiding a family member in monitoring the health and activity of an older relative and minimizing the time it takes to do so, said Smith.



Photo by: Tony Brown/imijphoto.com

In the next ten years, RFID, referred to by Smith as “power without wires,” will not necessarily get cheaper, but it will get smarter. Smarter RFID may in the future allow object recognition to determine the location and orientation of a particular object. Smith believes that RFID will become more widespread by 2016, that it will be more capable of sensing and computation, and that it will move beyond mere activity monitoring to robotic assistance. For example, paired with robotic technology, a device could bring over a medication to a patient without the need for monitoring by health personnel.

Richard Adler, Principal of People & Technology and a Research Affiliate at the Institute for the Future, spoke next about the elderly population and the exploding costs of healthcare, along with

devices that utilize cellular phone technology to help assist those who need help in activity monitoring. Such devices are especially relevant to the elderly population but also to people who want to change behaviors, such as quitting smoking. These technologies will put the patient rather than the health care system at the center of management of health and wellness, said Adler, increasing patient autonomy and thus making accuracy of information increasingly important.

A video entitled “The Korean Ubiquitous Dream Hall” was aired next. It showed how wireless technology is ubiquitous in South Korea, where machines are learning how to talk to each other. The video featured a Smart Home, where home appliances all run on wi-fi. In this house, “wireless access [is] a commodity, like water.” The host declared that the technology in the Smart Home “is so advanced, so ubiquitous” that “it’s like a dream!” A user can interact with a technology through voice activation: one get a computer to respond by talking to it. The home’s refrigerator is an RFID reader with the food items inside all tagged to transmit constant information about their status—their ingredients and their freshness, for instance.

Jeroen Terstegge, Corporate Privacy Officer & Senior Counsel at Royal Phillips spoke next, on a very related note, about “ambient intelligence,” information that “will be integrated to the background of our real environment.” In such a world, the “relationship” between us and the technology around us is very important, precisely because it is “intangible” and “invisible,” said Terstegge. Such technology promises improvements for quality of life but must be relevant, meaningful, and understandable if it is to be useful.

“We have to take care of how the technology learns, what it learns, and how we can erase its memory,” said Terstegge. He showed models of “intelligent” spaces: the intelligent bedroom, hospital room, museum, and public space, where people can interact with objects through wireless commands.

David Turner, Director of Standards in the Mobile and Embedded Devices Division at Microsoft talked about a technology called Near Field Communication (NFC). NFC’s advantage is its “limited range capabilities,” said Tuner. Contactless payment cards are based on NFC. A near field network limits the need to go through a long-range network to access a target device. Interoperability is necessary for NFC or any similar technology to be useful to a mass group, said Turner. This brought up the issue of the cost of such technology. Responding to the earlier prediction that RFID will get smarter but not cheaper, Maxwell said that he believes “people will find the technology that fits to [their] purpose” so that “there will be a very large range of solutions that will be interoperable.”

Sandy Hughes, Global Privacy Executive (CPO) at Procter & Gamble Company gave a presentation about Electronic Product Code (EPC) Global, the development of industry standards to support RFID, particularly for the purposes of tracking a product through the supply chain. EPC has the potential to convey when shelves in stores need to be re-stocked of a particular product. When it happens that consumers cannot find a product on the shelf, because a store has failed to re-stock fast enough, they switch products or brands, Hughes said, a big concern for companies. She outlined how EPC can keep track of a specific product through the supply chain. Procter & Gamble used EPC for tracking product displays for razor blades—essential advertising campaign components. P&G was alerted via RFID when a product display did not get to the proper store, allowing them re-direct the right displays to the right stores with much greater success than pre-RFID.

Finally, Paul Moskowitz, Research Staff Member at the IBM T.J. Watson Research Center spoke about the Physical Means for Privacy Protection for Retail Item Tagging. Today, we’re tagging cases of products that move through the supply chain, said Moskowitz, but tomorrow we can tag individual products. There are various ways to protect RFID tag information from getting out, said Moskowitz. One way is with a “clipped tag,” an RFID tag structure that “permits a consumer to partially disable a tag to transform a long read-range tag into a proximity tag. He said that

“pervasive RFID applications” include tollbooth passes and tags given to runners at marathons to track their place. Today, RFID is a “commodity item” that will not need to be “re-invented,” and “re-engineered” and therefore can allow for expansion in its use, said Moskowitz.

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Computing Power and How it Will Be Used in the Marketplace of the Next Tech-ade

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Photos by: Tony Brown/imijphoto.com

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Though this may seem ominous to those concerned with privacy, Horvitz ensures that AI will actually lead to a “shroud of privacy,” where personal information is customarily confined to the individual consumer’s immediate world. He says that systems can be personalized to “leverage very sensitive data,” for the service of the individual. When asked, Horvitz acknowledged that there are potential risks of privacy infringement, but he thinks that “rich sensing and personalization with AI applications don’t necessarily mean sharing all of this information.”

Deirdre Mulligan, Clinical Professor of Law and Director of Samuelson Law, Technology, and Public Policy Clinic at the University of California Boalt Hall School of Law, anticipates that privacy will not be the only issue stemming from new computing abilities, that there will be “a lot

of consumer sensitivities that are going to go beyond privacy.”

David Hitz, the Founder and Executive Vice President of Network Appliance wondered “For a lot of this data, who owns it? Do I own the data about me, or does Amazon own the data about me?” “From a policy perspective, that’s not the right question,” Mulligan responded, “the data is clearly about me regardless of who clearly has control over it.” Data miners have control over data for certain purposes, but they do not have complete physical control over that information. She suggested that Horvitz’s model could put the individual more in control data by “Leverag[ing] consumer’s capacity to make decisions in the marketplace,” though she is still skeptical can occur.

The next question becomes the level of proprietary interest of a data holder. For instance, Mulligan suggested, a doctor has great proprietary interest over data. The challenge is always to balance the proprietary interest with the privacy interest, she concluded.

Dr. Anthony LaMarca, Associate Director for Intel Research Seattle next gave a presentation about Sensor Networks which he defined as a group of “many spatially distributed devices used to monitor conditions.” Advances in the components that compose sensor networks will drive this technology, LaMarca said. Sensors will be useful in new domains including disaster and emergency response, precision agriculture, proactive home maintenance, personal health monitoring, and wildlife conservation.



Power management will be the key to further advancement of sensor networks, because the technology requires great battery life. Development of wireless sensor networks will rely on new developments in short-range wi-fi technology. LaMarca anticipates these developments will come to fore in five to ten years.

All of this brings up legal issues in privacy and security, and according to Mulligan, the typical ways of thinking about such issues will not be as important here. As Bregman said, the discussion centers around the “framework of how we are going to analyze all of this new data.”

Bregman asked whether there has been a generational shift in the meaning of privacy, suggesting that we’re trying to solve the wrong problems. “Privacy is a very contextual thing,” said Mulligan, who pointed out that people who use social networking sites and disseminate information about themselves there can still be concerned with data mining of other information about them.

LaMarca acknowledged that there was a “fundamental conflict” between designing a sensor to do its job and to protect privacy. Mulligan believes that such a conflict occurs when there is “not a front-end effort to educate people.” She thinks education can help to alleviate fears of new technologies and their wider adoption.

Sal Capizzi, Senior Analyst of the Yankee Group came on next to talk about data storage. “Capacity is going to grow, and mobility by consumers and employees is going to continue to grow,” Capizzi said, which means that consumers will have more convenience. “Convenience,”

he warned, “is always going to translate into risk at one level.” Capizzi said that data as an aggregate grows at about 50 percent a year. Current capacities to hold this data are not as much as we thought they would be.

Capizzi said that a storage method called “perpendicular recording” can aide in expanding capacity. Perpendicular recording “is an ability to store the bits vertically rather than horizontally, which will increase the storage capacity by ten times of what we see today.” This wil still translates into security issues because more data capacity allows for more mobility of data and less control by a data center. This will require some kind of response in the instances that data is compromised (e.g., if one loses their laptop). The components of securitizing data are authentication, authorization—does that person have the authority to access that information, and encryption, Capizzi said.

Hitz said that there has been a “fundamental shift” in corporations’ concerns about data breaches and data security compromises because of the potential for bad publicity and loss of trust from the consumer. There are many questions around what the consequences should be for a company who loses or compromises consumers’ data “what do you believe should happen if you lose someone’s data—was that just carelessness? was it negligence? was it criminal?” All of this is happening because of the immense capacity and resulting responsibility that corporations have when storing and managing consumer data. “We’re storing more data, and the data we’re storing matters more,” Hitz said. He believes this will trend will only continue.

A lot of states have passed breach laws, Hitz said, which require companies to notify consumers if they have lost their data. The problem is that these laws are only at the state level and thus make it hard for companies to systemize their data protection efforts. It is very expensive to use data, and therefore credit card companies have strong regulations for preventing it. Hitz does not believe that there is a “quick fix” in the form of one privacy act that gets passed within one year, but rather we will have “the decade” of privacy protection policymaking, where many interests will have to get together and discuss the issues.

The panelists pointed out that it can be more compromising to give one’s credit card to a person in a store as opposed to entering that information into a computer. Bregman suggested that there should be greater education about the safety of conducting business with personal identifying information online. “There will be incredible incentives,” said Horvitz, to produce greater storage, access, and in general technologies that are usable.

LaMarca believes that there should be a lot of education in the “consumer space” about the risks of losing data, which some people store exclusivley on a hard drive in their computer, sometimes to the data’s detriment. He joked that two college roommates may one day realize their parents have both lost all of their baby pictures that they stored on their computer.

BJ Fogg, Senior Researcher at Stanford University Persuasive Technology Lab participated in the panel via telephone and presented a powerpoint about a stuffed monkey who feels “poked, prodded, and pestered” by his computer’s nagging devices that want to make computation upgrades—from being asked whether he wants to update his anti-virus software to whether he wants to make a weather forecast software into his homepage.

Fogg then presented studies he has done about how people get persuaded by the web, citing misplaced trust because of a “slimmer set of cues” than in the physical world; seduction through video games which “set up their own world” with a unique set of rules about which consumers do not necessarily think critically; and persuasion profiling, meaning that people are vulnerable to diverse types of persuasion strategies. Bregman concluded that as technologies become more ubiquitous, we may not even notice them, and they may become invisible to us to the point where we take them for granted and do not anticipate potential failures to which they may be prone.

Mulligan ended by pointing out that consumers may be unaware of how their information online “If I’m storing it on my hard drive, it’s the same as if I’m storing it on a piece of paper” but one may not even be told that a file that was stored on the web, for instance in a personal mail service, has been accessed. She also said that currently, there is less of a drive to ensure stored data is secure. Therefore there need to be a definition of good security standards because we currently lack them.

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PROTECTING CONSUMERS IN The Next Tech-ade

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Marketing and Advertising in the Next Tech-ade

Posted on [Tuesday 7 November 2006](#)

Commissioner J. Thomas Rosch began the second panel of the morning with remarks via video about his experience at the FTC in the 1970s. "Privacy and data security weren't even on the horizon," back then, Rosch said. Even in the mid-1990s, when the FTC held their first comprehensive hearings, "The Commission didn't see coming a number of things that affected consumers and their welfare," such as spyware and spam. The future of consumer protection requires identifying the relevant technologies, Rosch said. Broadband, for instance, will continue to be important as well wireless technology and the "freedom" that it offers. "Issues that we are grappling with now and have grappled with in the past," are still covered by the FTC's "traditional" methods of law enforcement, said Rosch. The agencies efforts to educate policymakers will be as important as its effort to educate consumers in the coming years. Rosch encouraged Congress to work to get the US Safe Web Act passed so the FTC can fight the globalization of bad web practices.



Photo by: Tony Brown/imijphoto.com

Brian Wieser, Director of Industry Analysis at MAGNA Global USA, moderated the panel and introduced Dave Morgan, Founder and Chairman of TACODA, an advertising company that works on targeting methods. More and more information will be digitized, said Morgan, which means that the "place, time, and method of consuming will shift" to "on-demand" for consumers. "I think we will see more and more information become available, but I think virtually all of it will be supported by advertising," Morgan predicted, acknowledging that this idea is "controversial." This will make advertisers' work difficult, Morgan said, and will pave the way for what TACODA is doing to advertise, a method called behavioral targeting. Morgan acknowledged that behavioral targeting will spur a lot of privacy issues but believes that the ad industry has taken positive self-regulatory steps. We're working to "better-codify the best practices," Morgan said, including

giving notices on the websites of companies and giving consumers the opportunity to opt-out and avoid targeted information that would exploit or compromise private information.

Next, Eduardo Valades of iHispanic Marketing Group said that his company's goal is to know what the customer wants and target to that need, particularly by understanding how Hispanics use search engines. iHispanic conducts surveys of Hispanic populations in Latin America and the US and compares them with the general population. He said that such surveys yield helpful results, such as that the Latin American population is using search engines for music more than the other groups.

Next, Jennifer Barrett, the Global Privacy Officer of Acxiom, talked about how her company provides advertisers with information services that help their clients to market and prevent fraud. "I submit that marketers have engaged in target marketing long before the Internet," and the past history of target marketing can help us predict its future, Barrett said. This marketing started with mass mailing and continued into the 1970s with prospecting based on consumer purchasing behavior that was obtained from other companies. However, in the past, these practices were limited to sophisticated companies who could afford statisticians. In terms of maintaining privacy in the present day, Barnett said that Acxiom recognized that there needed to be rules for the use of personal identifiable information (PII) when she arrived at the company, and that Acxiom was one of the first companies to post a privacy policy. Today, Acxiom clients use both their own and third-party data to match information, which results in "less clutter" for the consumer digesting the ads. Barrett said that issues like spam and spyware had to be dealt with and that "the consumer should have some easy-to-execute choices regarding the use of their data." She said that trade associations have made much of the personal information-safeguarding practices into part of their codes of conduct. Those companies that will fail, Barrett predicted will do so "not because of technology or use of data" but because they inadequately target the consumer.

Next, Wieser said that even though it is possible to target people via media, it does not happen as often as one would expect. He pointed out that in New York, where he lives, the market there receives commercials for companies that are located nowhere near that region. Hearing this, Morgan responded that the biggest problem consumers have with online advertising is that there is "too much of it, it's too cluttered, and it's not relevant," suggesting that much more targeting can be done. "Could the costs of targeting be so high that the desired results do not emerge?" Wieser asked next. Morgan answered that the Internet and its advertising models are making targeting more cost-efficient. He predicted that this will be a long process and would take decades before digital technology is refined. "Are advertisers and marketers able to make use of all of the data that they gather"? Wieser wondered. Barrett responded that marketers vary in their degrees of sophistication and that it is important to understand the use of data.

John A. Greco, President and Chief Executive Officer of the Direct Marketing Association said that the "members that I represent are clearly in this to establish longterm relationships with consumers." Marcia Hofmann of Electronic Frontier Foundation emphasized that consumers are still very concerned with how their personal information is used, especially because more sophisticated market research means more data collected about the consumer. "There are few market incentives to protect consumer privacy," and, Hofmann said, "they need to be empowered to make their own choices." Wieser countered that there is significant concern on the part of advertisers over crossing a line and provoking a "consumer backlash." He asked how Hofmann would advise marketers to avoid abusing their relationship with a customer. Hofmann responded that consumers do prefer ads that are relevant to their interest, but that consumers should be allowed to choose what sort of advertising they want to see rather than have the advertisers make decisions for them and merely create opportunities to opt out that consumers might not be aware of.

Greco said that to protect consumers, we need to figure out from what we want to protect them past the areas upon which "we all agree." If consumers are not presented with an advertisement,

they may have a huge missed opportunity, he added, “Do you see a world that’s highly segmented in terms of the solutions as opposed to a one-size-fits-all?” he posed, rhetorically.

Brian Stoller, Senior Strategic Development Director of Third Screen Media then spoke of what he referred to as the “Mobile Advertising Ecosystem,” the chain that governs how advertisers target consumers’ mobile phones. Stoller assured that the wireless phone carriers play an important role in turning off unwanted advertising targeted to mobile phones. Stoller said that people who access web content through their phone end up paying a lot in subscription fees, and therefore it would benefit them if advertising is allowed by causing subscription fees to go down. Wieser asked Stoller how mobile phone advertisers can be made to seem less intrusive. Stoller said that there needed to be limits on mobile advertising methods, such as no pop-up ads. Wieser moved on to talk about interactive technology and its implications for advertising. “To say that the future is going to be interactive actually pre-supposes one thing: that consumers want to interact,” he said. There are a lot of data points that suggest that consumers are taking control of their media consumption; however, there are impediments to interactivity, such as obstacles made by established companies to new enterprises that would enter into the market and creating increased competition. Although consumers who are “early adapters” to new developments in advertising might indicate potential growth of use, early adapters are not representative of the wider population, Wieser said.

Wieser said that he keeps exploring the question, “Do consumers want control?” He said that the “utility of choice” is that we tend to value things “based on the opportunity costs lost.” Choice is not inherently appealing to consumers, Wieser suggested, and it is often overwhelming unless the other option seems more inconvenient. As an example, conventional television viewing still outpaces use of online, on-demand video that represents “true control of when and where you watched content” even though the online content is “some of the most top quality, A-grade” content out there. People love to have choices, Morgan emphasized, and some of the statistics do not capture this. “Consumers want choice, but they want choice that they can understand,” added Barrett, and choices that are “too complex” typically “create paralysis.”

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Benefits to Consumers of Living in an Instant Information Culture

Posted on Tuesday, November 29, 2006

Lee Ranie, Project Director of the Pew Internet and American Life Project, moderated the first panel of Day 2 of the Tech-ade Hearings. He started off the morning with a poll to the audience on how they use Internet retail websites. Most respondents use them for actual purchases, but many others use them for product research.



Photos by: Tony Brown/imijphoto.com

Kamran Pourzanjani, President and Co-founder of Price Grabber.com, made the first presentation. PriceGrabber takes comparison shopping online by providing consumers information about all merchants that are selling a product, using product reviews, product availability, and price comparison. Pourzanjani noted that most consumers do not buy from the merchant with the lowest-priced product; he suspects that this has to do with the reviews of merchants. Taking the user-generated element even further, consumers can contact reviewers about a review or rate a review, and different products can be compared side-by-side. The extent of information included on a purchase is quite detailed: a consumer who wants to book a flight can even see how much leg room an airline offers.

Next, Mark Chandler, Executive Vice President of Sales and Chief Operating Officer of Autoland, presented his company and its website. "We're not just about selling cars, we're really about informing people," Chandler said of his company. Autoland integrates a chain of experts from several components of the auto purchasing process. The company works with many credit unions, and pulls inventory from several different "preferred dealer partners." It uses consultants to facilitate financing and insurance of the automobile. Autoland allows consumers to avoid the traditional and sometimes scary auto-buying process.



Liam Lavery, General Counsel of Zillow.com, explained that the website began when its founders realized that it was not easy to find useful tools to aide in their potential real estate purchases. It launched in February this year and has the fifth-largest traffic of real estate websites. According to Lavery, the traditional approach to online real estate has been based upon an “elite model” of “taking consumers to professionals,” but he says that not everybody wants to start there right away. Some people just want an overview of the marketplace. Zillow brings together public data about a home—number of bedrooms for instance—and corrects for potential errors in this information by encouraging actual homeowners to correct any bad information. Because Zillow cannot go out and verify all of the information they provide, “we make it really transparent where this information is coming from,” according to Lavery.

Lavery said that Zillow is still trying to figure out how to get advertising revenue, and their model is entirely advertising-based, and follows the Google model “that if you get consumer information right and pure and trusted...then you can sell contextually relevant information on the outside, keep your information pure, and still have a viable business model.”

Next came Jeff Fox of Consumer Reports, who said that they were “reinventing” the well-known consumer periodical for the 21st Century. Consumer Reports is the largest publication-based subscription website and is non-profit, non-commercial, and includes no advertising. According to Fox, despite the breakthrough of user-generated content in influencing consumer opinions, consumers, even those in the 18-24 age bracket, still trust branded media reviews and company information the most. Furthermore, Fox pointed out that Consumer Reports has been using consumer opinions in their print edition. “We’ve incorporated consumer experiences in the magazine for decades,” he said.

Fox said that Consumer Reports once “static” printed table is now an interactive exercise, using web technology to allow the consumer to manipulate the charts. The website includes consumer forums with some of the most well-informed consumers and is starting to introduce user reviews. People search for products based on lack of familiarity but there is no difference in the amount of consumers who research big ticket items versus those who research less. “We’re really working to perform and protect consumers; that’s who we answer to,” said Fox.

Sucharita Mulpuru, a Senior Analyst at Forrester Research, was unable to be at the Hearings, so Rainie gave her presentation. People tend to use the Internet to do product research in much greater proportion to actually buying those products online. Consumers are posting a lot of content and thus “contributing to the flow of information” of consumer information online. Consumers do not fully trust the information they find online: “there is a healthy degree of skepticism about whether the information they encounter will be accurate,” Rainie said. “Consumers are not just on one side of the transaction anymore,” Rainie added, “they are the producers of the information.”

Rainie then asked the panel whether the consumers' approach towards purchasing has changed. Chandler responded, "A few years ago, it was really about price...[but] I think what I'm seeing now is the trend towards value." Pourzanjani agreed based on what he sees on Pricegrabber. "Consumers have gained a lot more tolerance and patience towards sorting data," Lavery said.

Next, Rainie wanted to know how the sites deal with the volumes of information and assess its accuracy. "By making this info available to people and letting them interact with it," Lavery responded, "that's an environment that people are going to like and get some benefit out of it." "Accurate, real-time information is essential," said Chandler. Pourzanjani said that it's important that the website monitor the user contributions for "junk content," and the Pricegrabber community itself is an important tool to monitoring and keeping information accurate.

Fox pointed out that a recent Consumer Reports survey found that security of Internet retail is as important as pricing to the consumer.

Rainie asked the panelists whether industries should be de-regulated because businesses seem to be moving towards increased transparency and stemming the past concern that consumers could not get accurate information. "I think in the auto industry, there's still a lot of people out there that are not following the best practices," Chandler said. "The real estate space is actually quite regulated at the state level—there's a lot of good consumer protection that comes out of it," said Lavery. He added though that "I think that consumers will benefit if [the] information services have a little room to breathe."

Rainie concluded by asking what scares each of these representatives the most in the coming years. Pourzanjani worried that there is still "room for a lot of websites that misuse the public trust," and therefore might scare consumers off from using product comparison sites. Chandler expressed that Autoland still had an important role to play because of the "thought of people who go through the traditional fashion and absolutely get beat up." Lavery said it is in the back of his mind as to whether "what we're planning on doing and what we're already doing is what consumers really want."

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PROTECTING CONSUMERS IN The Next Tech-ade

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User-generated Content - What Does it Mean for Consumers and Marketers?

The last panel of the day, on user-generated content was moderated by Esther Dyson, Editor-at-Large at CNET Networks. The panel brought together perspectives from operators of user-generated websites with those of academics.

Amanda Lenhart, Senior Research Specialist at Pew Internet and American Life Project, began. Seventy-three percent of Americans are online, and 60% of users have broadband, she said. Lenhart defined user-generated content in basic terms, as “anything that is produced by the user.” Blogs, photosharing sites, video sites, social networking sites, wikis, dating sites, sites where users tag or items/people/services, and classified ad sites are all user-generated. Income level is less determinative of who will create content online than is broadband access, and members of the younger population, especially teens, are especially involved and familiar with creating web content. “The thing to remember about blogs...is that it’s actually not that big of a deal in a lot of their lives,” said Lenhart.

Lenhart brought up some important issues with user-generated or “second content” including who owns the content created by the user, who gets to determine how content or data is used, and whether new blogging software called Vox will pave the way for more “nuanced” privacy controls than has been seen in the past.

Dyson then introduced the famous Diet Coke & Mentos Experiments video, a seminal example of user-generated content, in which two men dressed in lab coats drop Mentos candy into rows of 2 liter Diet Coke bottles, creating well-coordinated explosions of the carbonated beverage. The amateur video became a watershed of user-generated web material.

Andy Chen, co-founder and Chief Executive Officer of PowerReviews.com emphasized that product reviews are the prime form of user-generated content and he discouraged the FTC from regulating such sites. Mack Tilling, Chairman and Chief Executive Officer of Vizu.com, explained the concept behind the website: to reveal what the world thinks about any issue.

Dr. Michael Geist, Canada Research Chair of Internet and E-Commerce Law, of University of Ottawa, suggested that user-generated content goes hand in hand with the rights of consumers in the next Tech-ade. It will be important to “ensure[e] that [consumers] have the ability to speak out and the ability to be heard” because they “do far more than just consume, they are an active participant in all of this,” Geist emphasized. Despite the involvement of consumers in generating web content, “there can be serious impediments to allowing consumers to speak out,” he emphasized. He said that the “net neutrality” debate should not be “relegated to the slow lane” just because it is not as relevant to the creators of professional content on the Internet.

The panel then moved on to look at the degree to which privacy controls should accompany user-generated opportunities. According to Tilling, industry-backed disclosure standards would be more ideal than government regulation. Dyson pointed out that it would become increasingly important in terms of legitimizing user-generated content for people to register to participate in such websites, and asked the panelists what they thought in this regard. Chen said that a consumer must have incentive to disclose some personal information that is required when registering to be a participant on some websites. It is "up to the marketer to provide a high-value for registration" to a website, he said. Lenhart emphasized that users are not aware of the extent to which advertisers might sell their information.

Professor of Law Jane Kaufman Winn, of University of Washington, gave the final presentation of the day. The politics of identity has exploded in recent years," according to Winn, who encouraged empowerment of the Internet user. "Putting users in charge of their identity is technologically sophisticated," Winn added. She wants to try and get away from the "strong tilt to commercialization" with which she believed that others at the Hearings had approached the development of technology. Winn said that the potential of user-generated content to allow for "much broader feedback about the way products and services are designed" can help companies make better products. She wondered whether the acceptance of "embedded content" in blogs and other user-generated sites by industry and government might just be an American rather than an International trend and therefore illustrative of the American orientation on commercialization.

Katie Harrington-McBride, the FTC's Tech-ade Hearings Coordinator, asked the participants about data mining, the acquisition of data about consumer's online usage to target advertising at them. "I'm not sure that very many companies do it well, and I don't think it's as widespread as we think," answered Chen. If you start revealing to the users how their information is available, such as data about their Internet usage habits that is "mined," it becomes a lot more worrisome to them, Lenhart suggested. This debate is what distinguishes the U.S. from Europe, Winn added, because "everything is permitted until it is explicitly forbidden" in the U.S. "I'm really on the side of letting consumers be the judge" of a website, based on its disclosure, Chen said, as opposed to increased government regulation.

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Social Networking-Trends and Implications for the Future

Posted on Tuesday 7 November 2006

FTC Commissioner Pamela Jones Harbour introduced the panel on social networking trends and their future implications. Social networking websites offer teens and “tweens” an exciting new communications opportunity, but they also pose risks for young users. The FTC is “committed to providing a safer online experience to children...through consumer education and targeted law enforcement,” said Jones Harbour.



Photos by: Tony Brown/imijphoto.com

The Commissioner encouraged parents to talk with their children: “Parents must become fluent with the online activities of their children” to lessen risks to their well-being, a continuing worry over children’s usage of the Internet. She pointed out that many social networking sites now link to FTC material to help provide parental guidance, and that the FTC is actively enforcing the Children’s Online Privacy Protection Act of 1998 (COPPA).

The Commissioner suggested further practices and policy for social-networking sites, including the implementation of a mechanism to verify the age of users and a link provided on the site to a uniform Virtual Global Taskforce Icon that would allow users to report abuse to the sites.

She presented a public service announcement that urged parents to monitor children’s use of social networking websites. Another “man on the street video” surveyed people to find out who uses social networks and for what. Many of those questioned expressed enthusiasm about popular social networking websites. Even a Revolutionary War reenactor, dressed in full 18th Century soldier regalia, said that he uses the Internet to help him connect with fellow reenactors and discuss such subjects as “what were combs made of back then.”

Tim Lordan, Executive Director and Counsel for the Internet Education Foundation moderated

the panel, which included representatives of popular social networking sites. All participants emphasized that online social networking has increasingly become a mirror of social networking in the physical world.



Benjamin Sun of Community Connect said that his site grew through word of mouth. He said that when he told potential investors about social networking sites for Latinos and African-Americans, they were skeptical that there would be a market, believing that blacks would not go online at all. A couple investors understood, though that the business model was “just taking what happens in the real world and transposing it online.” Sun said that networking sites will further “go after these audiences, segment them, and target them,” continuing to be relevant to diverse communities.

Chris Kelly, Vice President of Corporate Development and Chief Privacy Officer of today’s most popular social networking website, Facebook, provided the second presentation. The average Facebook user only has “access to half a percentage of the profile information” contained on the entire site. Therefore, “Facebook allows people to connect to the communities that they’re already in,” Kelly said. “By limiting and basing things on trust, we foster that sense of trust and lead to more accurate information” on Facebook profiles.

The keys to Facebook’s success, according to Kelly, is user control of information, authenticity—that is, the ability of people to act like themselves—and accessibility. Facebook promotes authentication, such as the use of valid e-mail addresses to register and different levels of privacy controls, to make the social networking experience conform to offline social networks. Kelly foresees that in the future, Facebook will constantly work to improve tools while protecting user privacy, its ultimate goal being the use of the “power of technology to improve human connection.”

Hemanshu Nigam, Chief Security Officer of Fox Interactive Media (FIM), came next. FIM owns MySpace, among other entities. Nigam tried to demystify the appeal of MySpace for the audience, “People like to express themselves.” The typical MySpace user will do online what they do in the real, physical world, he added. Like Facebook, Nigam believed MySpace is an example of the “lifestyle convergence between the physical world and the online world” that will continue in the next decade.

In terms of enforcement and consumer protection, MySpace plans on increasing safety features that “reduce actual and perceived threats” to users; pushing guidance and education for teachers, parents, and teens; partnering with NGOs and government agencies; and becoming a “critical partner” with law enforcement.

Andrew Weinreich, Chief Executive Officer of MeetMoi, LLC, came next. He said when he initially tried to get investors for his first social networking site, Six Degrees, no one thought social networking would attract consumers. Meet Moi requires users to validate that they are over 18 and uses an algorithm to map where a user is located in order to connect that person with a potential date nearby. One of the keys to developing the models of Six Degrees and Meet Moi was “making sure that we weren’t inventing new social behaviors.”

Next, danah boyd of the School of Information at the University of California, Berkeley, informed the audience that different age groups are engaging online in different ways. Teens go onto websites to “hang out with their friends” while older users—people in their late 20s and 30s, use the website to meet new people and form new networks. She said that teens’ use of these sites are similar to past ways in which that age group socialized, such as trying to use a network of friends to look popular.

Finally, Anne Collier, President and Editor of Net Family News, talked about what to know about child safety and how to ensure it. “Education and problem-solving need to be as interactive and collaborative as young peoples’ experience of the web, or it’s not authentic” for them. We have less control over what children do online, so we need to focus on “influencing and managing” the experience of children, Collier said. Online safety as we’ve known it up until now is becoming obsolete” because “they aren’t very relevant to teen online socializing.” According to Collier, those most at risk of visiting harmful websites—for instance, a teen who engages in self-destructive behavior like self-mutilation and finds a website that encourages this—are also those who are most at risk offline.

Lordan asked boyd and Collier how social networks could be used in positive ways in the future. Young teenagers in rural areas can now look up colleges and connect with people from whom they would be otherwise removed, boyd said. Collier said that youth social advocacy is “just blossoming” through the use of social networking sites, and Kelly and

Nigam said that Facebook and MySpace have been strong platforms for such advocacy groups. Kelly described Facebook’s recent creation of social networks based around candidates in the 2006 election as a way that young people have gotten engaged. According to Sun, the views of the communities represented by Community Connect have been more easily transmitted to the general populace through the site.

Lordan asked the social networking website representatives about advertising. “Advertising makes these sites free,” said Kelly, who pointed to Google’s model of “non-intrusive advertising,” which he said Facebook has embraced in the form of sponsored groups and sponsored stories.

According to Weinreich, building venture capital to fuel these communities has been even more important to their survival and sometimes prosperity than advertising, thus far. Nigam pointed out that advertisers don’t want to align their brand with a site that is seen as unsafe.

“Things are changing globally, mobile is the main place, and there will be a lot more questions,” boyd predicted. It will be “a given” that everyone has an online profile, said Nigam. “Carriers will hold tremendous powers and influence over the issues we’re talking about like privacy and security,” Weinreich predicted.

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How Will We Communicate in the Next Tech-ade?

Posted on [Monday 6 November 2006](#)

Gary Arlen, President of Arlen Communications, introduced the first panel after lunch by asking where the next generation would go with new technologies. He introduced five “Millennials,” all students at The George Washington University. Millennials are approximately college-aged students who are considered some of the most technologically-savvy members of the population.



Photos by: Tony Brown/imijphoto.com

Nell McGarrity, a graduate student in media and public affairs, uses digital communications to get information she cannot get through the traditional news. Peter Feldman, a second-year law student, said that digital communications is critical for legal research that he does as well as “tons of e-mailing” and reaching out to the profession. Marshall Cohen, a sophomore political communications major, uses instant messaging software to keep in touch with friends across the country. Joshua Meredith, a senior history major, uses it to do research for his senior thesis and for e-mail.

Feldman says without a cell phone, he would have “no ability to function.” Meredith would not be able to live without e-mail. Marshall says he can do everything through instant messaging. Steven Miller, a junior international affairs major, and McGarrity also said they couldn’t live without their cell phone. “The only people who call my landline are telemarketers,” McGarrity said.

The Millennials fully utilize the newer communications technologies. According to Feldman, e-mail makes it “a little bit easier to reach out to people—it’s a little less personal, but it gets the job done.” Marshall points out another advantage to e-mail and instant messaging: that it is “completely free,” in contrast to cell phone costs.

When asked towards what sorts of electronic products they gravitate, the Millennials said that

they are wary of buying expensive new devices because a new one is sure to come out soon after. Customer service is also important to his regard for a product, said Miller, and he runs into many inconveniences. "Getting into a live person is almost impossible," said Feldman, "Even though everything is digital, you still want that human on the other end of the line," to help you. Meredith said wireless access is very important to him. "There's nothing more frustrating than waiting for something to load," said McGarrity. "I'm hearing impatience here," Arlen responded.

"Do you ever feel you're too much in touch, that you'd like to get away from it all?" Arlen asked. "I'm used to always being in touch," Miller responded. McGarrity worried about the ramifications of constant availability, though: "I want to work the hours that I get paid for," she said, pointing out that having a PDA like a Blackberry would allow colleagues to believe she was always available for work.

Arlen then asked whether members of the panel feel secure conducting online transactions. Everyone was hesitant about putting credit card information and contact information online. As Feldman put it, "identity security is certainly something that's an issue." For Meredith, "I always get a little worried" when entering credit card information or viewing a bank statement online. Marshall said that he "just can't bring himself to use Ebay," and that "it's almost creepy" how much people can see on websites like Facebook.

Arlen then brought out the second part of the panel, on Communications-Privacy and Security in the Next Tech-ade. Dana J. Lesemann, the Vice President and Deputy Counsel at Stroz Friedberg, a consulting firm, said that technology is "neutral," because the "good guys and the bad guys" both have access through it. In the next Tech-ade, "we are going to see a move to the Peer Network," Lesemann predicted, meaning that she will be able to instantaneously use any network, regardless of where she is.



According to Ari Schwartz, Deputy Director for the Center for Democracy and Technology, "we are actually at a point of convergence," but that "one thing that we don't have today is the ability to synch all of this together." He said the next ten years will focus on how to put this all together and that privacy and security risks will arise from this effort. People conducting "old scams," would jump onto the new technologies, and communication technologies of today are "equally vulnerable." Schwartz pointed out that all instant messages are logged forever, though consumers are not necessarily aware of this.

Dave Cole, Director of Symantec Security Response, started off by assuring that the "drive-by install," which relies upon loopholes in browsers to "foist" un-wanted messages on computers will taper off over the next year. However, he believes that instant messaging is "the logical next step" to those who want to introduce un-wanted contact. Other online threats like worms and viruses are being introduced through Peer-to-Peer networks that enable file sharing.

Cole believes that full convergence is not quite here yet because there are still barriers for regular users to access the Internet through new devices. User-generated content and other

Web 2.0 applications are starting to feel like “full-blooded applications,” and as a result, “the web is becoming the platform.” “A lot of the attacks we see are looking away from exploiting a PC” to “a whole new genre of fake security products” that dupes people by exploiting their knowledge of technological safeguards, like antivirus uploads. “We’ve really only begun to scratch the service of the safety-security-privacy of the online world,” Cole said.

Lesemann said that one policy issue would be whether it will be optimal to keep large amounts of data, which could be targeted by a security breach. America Online (AOL), for instance, has limited the amount of data that they make available. Schwartz said that people are now more concerned about the availability of transactional information—information that can be used to identify a person, such as an IP address. “The biggest threats are still from account takeover,” said Schwartz, pointing to use of spyware to access identifying information to committ fraud. From the security side, according to Cole, “a lot of our world shifts to helping [consumers] making good decisions,” online.

Lesemann pointed out that with most instant messaging mediums, “the default is not to record” an online conversation. Google Chat is the exception. “Even if people use instant messaging and even if someone does not record it...there are forensic tools that allow forensic examiners to find messages,” Lesemann cautioned.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

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PROTECTING CONSUMERS IN The Next Tech-ade

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« [Key Changes Predicted in the Next Tech-ade How Will We Communicate in the Next Tech-ade?](#) »

The Changing Internet

Posted on [Monday 6 November 2006](#)

FTC Commissioner Jon Leibowitz introduced a panel about the changing internet. He encouraged Congress to pass an act against spyware to give the FTC authority to seek civil penalties, similar to the CAN-SPAM Act.



Photos by: Tony Brown/imijphoto.com

Wall Street Journal Technology Columnist Kara Swisher then moderated a panel on "The Changing Internet." She introduced Susannah Fox, Associate Director of the Pew Internet and American Life Project, who began by explaining that many people, especially among certain demographic groups, do not have Internet access.

Fox also said contrary to the idea that the Internet promotes isolation, that the prime social network of most Internet users is their e-mail address list and further pointed out that those who use the internet most often also use other communications technologies, like the phone, more often than those who do not. Other popular online devices include search engines and listserves, which are relied upon by consumers for accurate information, according to Fox.

Swisher asked Fox how to get people who are not online to log on. Fox answered that elderly people tend to be resistant to using the Internet, but lower and middle income people who are younger in age and tend to stretch their budgets to get broadband access. They still have to pay a high price for broadband, she acknowledged. Fox said that the elderly were most often lured

online to communicate with younger people in their social networks, like grandchildren.

Dr. Vinton Cerf, Vice President and Chief Internet Evangelist, from Google, and, as Swisher put it “the father of the Internet,” Peter Cullen, Chief Privacy Strategist of Advanced Strategies & Policy, and Dr. William Edwards, Senior Vice President and Chief Innovation Officer at AMD, discussed Changing Technologies and Applications on the Internet.

Cerf said that we need “social and ethical rules of the road” and “legal rules of the road” to govern the changing Internet. He said that the dropping cost of the Internet and the dropping cost of high-speed access are influencing whether people go online, but costs still are not low enough for many people.

Cullen said that there is currently a shift underway “from the PC revolution to the computing revolution,” where people will use multiple devices—not just the computer—to go online. Swisher asked him how Microsoft fit into a shift from the PC to computing from all sorts of devices because Microsoft was such a pioneer of the PC. According to Cullen, Microsoft is still very relevant: “I’d like to think that by 2016, we’ll have created a new social contract that will allow us to comfortably benefit from all of that convergence,” that is occurring with computing devices, Cullen said. Swisher asked Cullen how Microsoft’s role would change from one of the “dominating” force in computing. “I think the answer,” Cullen said, “will be interoperability,” that operating the Internet will have to get easier.

Edwards said that there is a lot of innovation still ahead of us. We need to make technology useful for people in various ways: it needs to be affordable, accessible, and useful for the potential Internet user; and this will require new business models and access points. “Good competition will figure out what the best answer is,” to these questions, Edwards said, cautioning that we should not look just to the U.S. for answers. Edwards believes that different types of computing devices—other than the PC—will be relevant to different populations.



Edwards, whose company has facilitated access to populations in Latin America, said that those populations were not necessarily interested in using the Internet for the same reasons that North Americans are. As a result, “the content has to be really tailored to those needs.” Cerf added that “we really need that diversity in input,” and that “one of the scary things about the media in general is that there is a consolidation trend” that is limiting this.

Swisher asked the three what the most exciting development for the Internet is today. According to Edwards, “User Generated Content gets down to what people care about.” Cullen foresees, “accessibility of information through convergence—I choose what I get when I get it, and [the] device becomes almost irrelevant.” Cerf heralded the “increasing number of people who have

access to the Internet by any means whatsoever.” There have been positive consequences to this access: “I am astonished...that a Google Search turns up incredibly useful information every time I go on.”

Next, Albert Cheng Executive Vice President of Digital Media at Disney-ABC Television Group presented an “Evolution of Media Value Chain.” He explained that the traditional “linear television” model is being phased out by the new digital media. “Digital media has created competition and a lot more choice in all of these segments,” said Cheng who predicted that the days of linear television are “almost gone.” Instead, multiple access points and multiple networks are allowing consumers to access content with many devices.

Digital media is creating competition, Cheng said: “We used to think content was king, but at this point, we actually have a mantra that the consumer is king.” ABC-Disney is still “a content company,” Cheng said, and they will continue to invest in “quality content,” because there is still a market for well-produced, high-quality content.

Cheng used ABC’s television show “Lost,” as an example of the company’s use of different digital platforms. The show starts on primetime but the next day, it can be found on iTunes, on the ABC website, and on On Demand television. Swisher noted that ABC-Disney was taking a unique approach for a traditional media company by giving consumers alternatives rather than fighting innovation. According to Cheng, other traditional content sources need to adapt, to be open to allowing their content to be distributed by newer platforms.

Swisher believed that Hollywood was both “embracing and horrified by” new video content viewing sources, namely YouTube. She asked Cheng how he viewed digital rights management, the effort of copyright holders to control who has access to distribute their content. Cheng said that there were understandable concerns in protecting rights but that there is nothing wrong with promoting as many people as possible see the content.

Safa Rashtchy, Senior Research Analyst of Piper Jaffray went last and gave a presentation “Internet for Everyone.” Companies that make money can’t “monetize” the “segment” of people that are not online, said Jaffray, which makes it harder for opening up the Internet new demographics. He pointed out that websites from the early days of the internet like Yahoo! still attracted high Internet traffic, but that MySpace and Facebook were generating even more.

The fastest growing population of Internet users is actually older people, but Baby Boomers still represent the highest number of users. Search engines have shaped the evolution of the Internet, said Rashtchy, with people doing searches for research, information, and increasingly, “exploring.” He foresees the ascent of local searches with engines like GoogleMaps, that will allow for establishments to include their locations, making for a new form of advertising. Rashtchy expects monetary growth of Internet entities to increase in the next ten years because of expanding broadband access.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

D20

November 6, 2006 | 8:15 pm

Kara Swisher. Best.Moderator.Ever.

How can we make any progress over the next 10 years if broadband prices remain

so ridiculously high? We must address this or the U.S. will continue to fall behind.
Kudos to the panel for their discussion.

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Chairman Majoras Welcomes the Next Tech-ade

Posted on [Monday 6 November 2006](#)

FTC Chairman Deborah Platt Majoras welcomed and introduced the FTC's Tech-ade Hearings. She looked back at the FTC's last hearings on technology and the consumer, The Global Hearings, which took place in 1995 and provided "much of the framework for our consumer protection agenda in the past decade." Majoras said that an event like this illustrates that government, business, and consumer groups can all play a role together.



Photo by: Tony Brown/imijphoto.com

[\(more...\)](#)

Filed under: [Uncategorized](#)

FTC Blogger @ 1:43 pm

[2 Comments](#)

Professor Jonathan Zittrain Participates in the "Ask the Experts" Series

Posted on [Sunday 5 November 2006](#)

Two weeks ago, we collected questions through the Tech-ade Blog for Jonathan Zittrain to answer. Zittrain is the Jack and Lillian R. Berkman Visiting Professor for Entrepreneurial Legal Studies at Harvard Law School, the Chair in Internet Governance and Regulation at Oxford University, and the director and co-founder of the Berkman Center for Internet & Society. He has researched and written about the effectiveness of

spam email and the use of Internet filtering, among other things. We received three questions from members of the public, which Professor Zittrain has answered below. Let us know your thoughts on these issues by submitting a comment in the box underneath this entry.

1. You've said that instead of using compromised computers to launch denial of service attacks or distribute viruses, hackers could choose to destroy the computers they take over. It hasn't happened (yet), but how likely do you think that this type of widespread destruction is? Also, do you think it is even possible to secure code that exceeds some minimal level of complexity?

I think that a watershed Internet-driven security event is plausible but not inevitable. There exist viruses that infect a lot of machines — well over 50% of PCs — and then choose not to do anything all that bad once they have the keys to the kingdom. Mix an effectively propagated virus with a nasty payload — deleting hard drives, or randomly transposing numbers in spreadsheets — and the effects would easily make headlines. Increased use of antivirus software might help, but the fact remains that people are still typically empowered to decide what code will and won't run on their machines, and they can make the wrong call despite the timely advice of an antivirus program.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 9:58 pm

[No Comments](#)

Martin E. Abrams and William Halal Answer Questions on the Tech-ade Blog!

In October, we provided members of the public with an opportunity to pose questions to Martin E. Abrams and William Halal as part of the FTC's "Ask the Experts" series. Although we did not receive any questions from the public, we took the opportunity to ask both experts some questions that we believed might be of interest to the public. Their responses are provided below. Please feel free to share your thoughts on these topics using the comment box underneath this entry, and check back for more responses from our expert bloggers in the coming days!

Martin E. Abrams is Executive Director of the Center for Information Policy Leadership at Hunton & Williams LLP [<http://www.hunton.com/Resources/Sites/general.aspx?id=45>]. He has nearly thirty years experience as a policy innovator working to find practical solutions to privacy and security problems.

1. Tell us about the Center for Information Policy Leadership. Why was it founded, and what are its primary goals?

First, I must be clear that these remarks reflect my views and my views only. They do not reflect the views of the Center for Information Policy Leadership, Hunton & Williams LLP, or their clients or members.

The Center for Information Policy Leadership is a think tank within the law firm Hunton & Williams LLP. We were founded in 2001 to think about the portions of information policy —privacy and information security — where there is room for improvement. We believe that information should be used to create economic and social value, but done

so in a fashion that is under-control. Individuals should have some space to define themselves and be free of information caused harm. The Center is funded by member companies that believe in our mission. They include banks, pharmaceutical manufacturers, tech companies, consumer goods, and information services. The Center played a key role in the global development of more readable privacy notices. Our current projects focus on global privacy transfers, information security, the emergence of privacy laws in Asia, and future privacy structures in the United States.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 5:02 pm

[No Comments](#)

Anticipating the Tech-ade Hearings: Convergence of Media

Posted on [Thursday 2 November 2006](#)

For years, people have picked up the telephone when they need to make a phone call, turned on the television when they want to watch a program, and logged on to their computer when they wanted to check their e-mail. Each of these media has, until very recently, stayed separate from one another, each governed by a unique set of regulations.

Today, this is changing rapidly. A mobile phone can be used to take a photograph, a television can be used to access a digital viewing menu, and radio shows can be accessed on the Internet. In these instances, different media—broadcasting, telecommunications, and computing—have migrated from their original platforms and moved towards a point of technological **convergence**, driven by the fact that they all can be digitized.

The logical endpoint of convergence is that all services will be accessible through one single screen, via one single cable. As media becomes uniformly digital in form, interactivity between consumer and media is increasingly possible—such as has been seen with digital television—as is mobility of a media-transmission device—such as has been seen with personal digital assistants (PDAs) and mobile phones.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 2:42 pm

[No Comments](#)

Paying Your Restaurant Bill in the Next Tech-ade

Posted on [Thursday 2 November 2006](#)

With various risks accompanying current payment forms and systems, businesses and consumers are gravitating toward new methods. Convenience and security are two of the driving factors in developing new payments. At the hearings, the FTC will examine several of the payment forms that are gaining acceptance and may dominate in the next Tech-ade. A couple of examples in the restaurant industry illustrate that sector's pro-active approach to security issues.

VeriFone, Inc., a San Jose-based producer of electronic payment devices, released VeriFone On the Spot payment systems solution in May 2006 to respond to one of the restaurant industry's biggest security gaps: the point in the meal when the server steps away with the patron's credit card to scan it. On the Spot, one of VeriFone's Vx 670 products, offers a solution to this potentially insecure transaction. The portable device, connected to a wireless network, is presented by the server to the restaurant patron at the point-of-service so the patron has possession of his/her credit card when paying the restaurant bill.

According to Rob Regan, General Manager of VeriFone Hospitality Systems Group, this device "has been a missing piece in the world of payment card acceptance." "Restaurants want to be more pro-active, to provide more security for guests," says Regan, and they like a technology that "secures payment at the point-of-service" and thus "removes liability from the restaurants." According to Regan, "We looked at what we had done in the quick service market, and we asked 'how do we deliver a secure solution like that in the right way for restaurants?'"

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 11:44 am

[No Comments](#)

Fran Maier of TRUSTe Participates in FTC's "Ask the Experts" Series!

Posted on Wednesday, November 2006

A couple of weeks ago, we provided members of the public with an opportunity to ask Fran Maier, Executive Director of TRUSTe, any questions they might have about authentication issues. TRUSTe is an organization that provides a seal of website authentication to reliable companies. Authentication, which involves verifying the digital identity of a user, has become a crucial component to keeping the web safe and secure as a global marketplace.

We received one comment but no questions, so we asked Ms. Maier to answer some questions that we thought might interest the public. You can read her responses to those questions, and to the public comment we received, below. Please feel free to provide your feedback using the comment box underneath this entry, and check back for more responses from our expert bloggers in the coming days!

1. Could you describe what TRUSTe does and how it fits into the authentication marketplace?

TRUSTe® is an independent, nonprofit trust authority that enables trust based on privacy for personal information on the internet. We certify and monitor web site privacy and email policies, monitor practices, and resolve thousands of consumer privacy problems every year. TRUSTe promotes standards for consumer notice and choice on the internet and in the evolving networked world, including email. Our Web Privacy Seal Program certifies Web sites' privacy practices to strict, generally recognized privacy protection standards. Our Children's Privacy Seal Program certifies that Web sites are complying with the Children's Online Privacy Protection Act ("COPPA")(we're an FTC-approved COPPA safe harbor), and our EU Safe Harbor Seal Program certifies that Web sites are abiding by European Union requirements for transfers of European

citizens' personal data to the U.S. We also certify Web sites' email practices through our permission-based Email Privacy Seal Program, and we provide certification services for senders of commercial email in ReturnPath's Sender Score Certified program. Last November we announced the Trusted Download Program (now in alpha testing), which establishes the first industry-wide standards for developers of downloadable applications and will provide a whitelist to help consumers and business distinguish legitimate software from "spyware."

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 11:20 am

[No Comments](#)

Anticipating the Tech-ade Hearings: What is RFID?

Posted on [Monday 30 October 2006](#)

Although many consumers have likely never heard of **Radio Frequency Identification (RFID)**, many of us may interact with the technology more in the next few years. We plan to examine RFID at the Tech-ade Hearings to figure out what impact new uses of this technology may have on consumers.

An RFID system enables data to be transmitted without any physical contact or line of sight between a mobile device, known as a tag, and a scanner that reads the data from the tag. The data pertains to information about the product that it tags, and today, RFID is mostly used for supply-chain tracking, though it has many possible future uses. For instance, combined with Global Positioning System (GPS) technology, RFID could be capable of tracking the location of a product.

RFID is currently being used in objects whose functionality many of us take for granted, such as public transportation fare cards and electronic toll collection passes, new developments that have made passing through train station gates and tollbooths a faster endeavor for busy commuters. Indeed, public transit riders may be some of the most well-acquainted with RFID technology, even if they do not know it. Major transportation systems use RFID for fare cards that work like debit cards, including the Washington D.C. Metro's SmarTrip card, and the Chicago Transit Authority's Chicago Card.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 7:19 pm

[No Comments](#)

A Debate on New Marketing Techniques

Posted on [Monday 30 October 2006](#)

Today, the Tech-ade blog features a debate between Dave Morgan, founder and Chairman of TACODA Systems Inc., a leading firm in behavioral targeting advertising technologies, and Dr. Joseph Turow, the Robert Lewis Shayon Professor of Communication at the University of Pennsylvania's Annenberg School for

Communication, and an expert in mass media, Internet, and marketing issues. As some of the most knowledgeable authorities on advertising, Morgan and Turow will argue the merits of behavioral targeting and other new marketing techniques to offer insight into an emerging trend of the next Tech-ade. We encourage you to post a comment and share your thoughts on this topic. If you have a question for our guest bloggers, please submit it in the comment box below by **Wednesday, November 1**, and Morgan and Turow will respond later in the week. Both will also serve as panelists during the Tech-ade Hearings.

HIDDEN MESSAGES;

IS NEW TECHNOLOGY EMPOWERING CONSUMERS - OR MARKETERS?

BY JOSEPH TUROW

During most of the 20th century, those in the advertising and marketing business made two basic assumptions. The first was that communication was one-way, from creators to audiences. Everyone understood that people couldn't really talk back to their TV set or magazines; they either agreed with what they saw or read, or they didn't.

The second proposition was that people paid attention to the ads. Of course, advertising professionals knew that readers skipped ad pages and made excursions to the kitchen or bathroom during commercials. Yet they took this as part of the challenge: their job was to create ads that would make people pay attention.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 11:16 am

[2 Comments](#)

Anticipating the Tech-ade Hearings: User-generated Content and Social Networking

A big part of the story of the evolution of the World Wide Web has to do with **user-generated content**. User-generated content refers to websites that consist of contributions from average users as opposed to web publishers and broadcasters. Blogs, wikis, digital videos, and social networking sites all represent popular types of user-generated websites. Some of the biggest online success stories in the last five years have been the creators of platforms for user-generated content, such as the developers of sites like Facebook, Wikipedia, and YouTube.

Social networking websites have garnered high web traffic and considerable media attention for their unique user-generated model. Although the complexity of the software upon which they operate varies, these websites all generally allow members to create profiles with information such as interests and birthdays and to socialize with fellow users.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 2:48 pm

[1 Comment](#)

The FTC's "Ask the Experts" Series Continues!

Posted on [Tuesday 24 October 2006](#)

Next week, Jonathan Zittrain will be answering questions about where the Internet is headed in the coming ten years. Zittrain is the Jack and Lillian R. Berkman Visiting Professor for Entrepreneurial Legal Studies at Harvard Law School, the Chair in Internet Governance and Regulation at Oxford University, and the director and co-founder of the Berkman Center for Internet & Society. He has researched and written about the effectiveness of spam email and the use of Internet filtering, among other things. Professor Zittrain can help answer your questions on how the Internet is changing and will impart his knowledge of Internet regulation, digital property, privacy, and free speech issues.

To participate in this exciting online discussion, please submit your question(s) to the comments section underneath this entry or email them to techhearings@ftc.gov by **Friday, October 27**. Then check back here next week when Jonathan Zittrain's answers will be posted!

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Filed under: [Uncategorized](#)

FTC Blogger @ 5:35 pm

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PROTECTING CONSUMERS IN The Next Tech-ade

:Tech-ade Blog

« [Chairman Majoras Welcomes the Next Tech-ade](#)

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Key Changes Predicted in the Next Tech-ade

Posted on [Monday 6 November 2006](#)

Lydia Parnes, the Director of the FTC's Bureau of Consumer Protection introduced the guests on the first panel, "Key Changes Predicted in the Next Tech-ade."



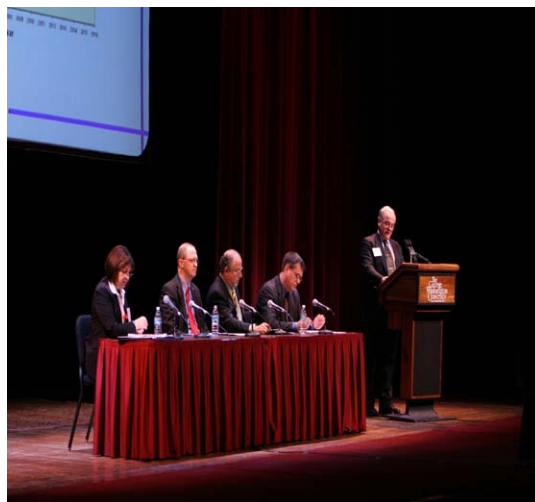
Photos by: Tony Brown/imijphoto.com

Dr. Frederick Hollmann, Demographer in the Population Projections Branch, Population Division of the U.S. Census Bureau, began with a presentation. He outlined several socio-demographic trends in the United States: years of education have increased, the participation of women in the labor force has increased, there have been steady increases in "unconventional" and multi-generational households, a demand for healthcare is on the rise, and the foreign-born population grows steadily.

Hollmann isolated two demographic trends: the elderly population is increasing, and the U.S. population is becoming more diverse. In particular, the Hispanic population is growing rapidly, and the Asian population is increasing at the highest percentage per year, though they make up a smaller portion of the populace than Hispanics. He cautioned that predictions of an increase in the ethnic population are never reliable, because fertility patterns are always subject to change.

Joseph Bates, Director of Research for the Consumer Electronics Association (CEA), followed with a presentation, "New Products—What Will Be Different in the Next Ten Years?" According to Bates, the consumer electronics industry is and continues to be "very healthy," employing 1.9 million Americans. Consumers own an average of 26 electronics per household, up from 14 ten years ago. According to Bates, "every year our products get cheaper, and they get better." He outlined the history of consumer electronics, from the first commercial radio in 1920 to Internet TV in 2005. In the 1990s, there was an "explosion" of new technologies, such as the DVD player,

plasma TV, and high-definition devices. "It's important to remember," Bates said, "technology takes time to diffuse into the marketplace," citing the cell phone and DVD players as examples of technology that caught on to a mass populace ten or fifteen years after they were first introduced.



According to Bates, the fastest growing products as of 2005 were portable MP3 players, standalone monitors (in-car), satellite radio tuners, and DVD recorders, all digital devices. Digital technology is "spurring" the development of the newest devices and moving consumers from analog to digital products.

Bates said "ease of understanding," how well the consumer can operate and how conveniently the consumer can use a product, governs that product's success. He said after digital technology, high definition would begin to "take hold," and an expanding number of products would connect to the Internet. Products that allow consumers to work and live "on the go," like handheld communication and entertainment devices, will change and grow in the market, with more wireless servicing to accommodate them. Bates cautioned against regulation of such services.

Alan Schulman, Chief Creative Officer of Brand New World, went next. According to Schulman, "we've gone from a mass-marketing world to a micro-marketing one." "Instead of 1 to Many, it's about crafting stories to 'Some,'" Schulman's presentation read. He noted; however, that it would always be too inefficient for the advertiser to target the consumer one-to-one. Still, new "niche technologies," such as podcasts, are helping an advertiser reach a particular audience with a product that will fit that niche. He said that advertisers were trying to figure out how to "aggregate" digital content to spread an advertisement through multiple platforms and create a "360-degree network experience."

Consumers are looking for "instant gratification" from their products, said Schulman. Advertisers are hoping to leverage this; for instance, delivering advertisements to the consumer's cell phone through a technology called QR Codes which can be accessed by the cell phone from billboards or even right in front of a product at the point-of-sale. Schulman said these new forms of advertising are all "based on the ability to opt-in."

According to Schulman, consumers have supplanted traditional distributors to become increasingly powerful in getting advertisements circulated, through online platforms like YouTube. New user-generated content websites like Blogger, Flickr, and MySpace is forcing advertiser's to re-think their position. "We're producing both shorter and longer forms of advertising than the 30-minute commercial," Schulman concluded.

Fred H. Cate, Distinguished Professor and Director, Center for Applied Cybersecurity Research, from Indiana University School of Law, finished up by looking at security and privacy issues

including the changing fraud and security threats, location information, information aggregation, global data flows and outsourcing, national security and law enforcement, accountability and transparency.

According to Cate, most consumers do not take advantage of tools that are provided to them to fight fraud, such as free credit reports. Privacy notices are ignored by most people, even though there has been a heavy focus on including them as disclaimers. He cautioned that allowing privacy infringements now makes it increasingly hard to get those back later.

Audience members were allowed to submit notecards with questions for the panelists. The audience also participated in an instant poll on what marketing methods would have the most success in the next ten years, with the largest number of respondents—35% of those polled—believing that targeting technologies would have the most success.

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PROTECTING CONSUMERS IN The Next Tech-ade

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[Key Changes Predicted in the Next Tech-ade »](#)

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Chairman Majoras Welcomes the Next Tech-ade

Posted on [Monday 6 November 2006](#)

FTC Chairman Deborah Platt Majoras welcomed and introduced the FTC's Tech-ade Hearings. She looked back at the FTC's last hearings on technology and the consumer, The Global Hearings, which took place in 1995 and provided "much of the framework for our consumer protection agenda in the past decade." Majoras said that an event like this illustrates that government, business, and consumer groups can all play a role together.



Photo by: Tony Brown/imijphoto.com

Majoras acknowledged that the Global Hearings did not foresee all consumer protection issues. Spam, viruses, and spyware, were not predicted at the Hearings, but nonetheless, the FTC took up these issues later on.

Majoras said that "vigorous competition" in the marketplace "is critical to enhancing consumer welfare," and that it is best to first look to existing legal tools to address new consumer protection issues. The "elasticity" of the FTC's core mission, to enforce against unfair or deceptive practices, has allowed the agency to fight new technologies, such as spyware, without needing new laws. However, when Congress provides new tools for the FTC, "we vigorously use them," Majoras said. "In the late 1990s, consumers began to be deluged with spam," threatening the future of their use of the Internet. Majoras said that Congress's passage of the CAN-SPAM Act of 2003 helped the FTC in limiting the impact of spam on the consumer experience.

She acknowledged the "inherent difficulties in predicting the future of technology" but said that nonetheless, it is important to try. Consumers have become "increasingly powerful" through the Internet, Majoras said. She pointed to Facebook.com, which unrolled a new "mini-feed" feature in

September that inspired strong protest from consumers and an immediate response and augmentation of privacy tools from Facebook's CEO, illustrating the importance of consumer preferences in the evolution of the Internet. "Consumer policy must be prepared to evolve to consumer expectations," Majoras concluded. "Let us begin in earnest our inquiry into technology."

Finally, Majoras introduced a "man on the street" video, with brief interviews with everyday consumers on the streets of Washington, D.C., about their views on technology. People expressed gratitude with the convenience technology allows but worried about its power to isolate people from one another. Hopes for future technologies included "wi-fi everywhere," smaller devices, and even computers that can type for people.

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Question

November 7, 2006 | [12:36 pm](#)

Is the "man on the street" video available anywhere on the Tech-ade website?

FTC Blogger

November 7, 2006 | [12:54 pm](#)

Thanks for your question. The consumer interview videos will all be made available on the Tech-ade website in the near future. In addition, we will be posting an archived webcast, podcasts of individual panels, and panelists' presentations in the coming days and weeks.

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Professor Jonathan Zittrain Participates in the “Ask the Experts” Series!

Posted on Sunday, 9 November 2006

Two weeks ago, we collected questions through the Tech-ade Blog for Jonathan Zittrain to answer. Zittrain is the Jack and Lillian R. Berkman Visiting Professor for Entrepreneurial Legal Studies at Harvard Law School, the Chair in Internet Governance and Regulation at Oxford University, and the director and co-founder of the Berkman Center for Internet & Society. He has researched and written about the effectiveness of spam email and the use of Internet filtering, among other things. We received three questions from members of the public, which Professor Zittrain has answered below. Let us know your thoughts on these issues by submitting a comment in the box underneath this entry.

1. You’ve said that instead of using compromised computers to launch denial of service attacks or distribute viruses, hackers could choose to destroy the computers they take over. It hasn’t happened (yet), but how likely do you think that this type of widespread destruction is? Also, do you think it is even possible to secure code that exceeds some minimal level of complexity?

I think that a watershed Internet-driven security event is plausible but not inevitable. There exist viruses that infect a lot of machines — well over 50% of PCs — and then choose not to do anything all that bad once they have the keys to the kingdom. Mix an effectively propagated virus with a nasty payload — deleting hard drives, or randomly transposing numbers in spreadsheets — and the effects would easily make headlines. Increased use of antivirus software might help, but the fact remains that people are still typically empowered to decide what code will and won’t run on their machines, and they can make the wrong call despite the timely advice of an antivirus program.

What concerns me most is the grey zone badware: software that isn’t an outright virus, but that a user installs because he or she thinks it will do one thing, while it quietly does more insidious things. That’s where the FTC could have a very important role to play.

Is it possible to secure code beyond a certain level of complexity? I’m reminded of a comment attributed to Sir Tony Hoare: “I conclude that there are two ways of constructing a software design: One way is to make it so simple that there are obviously no deficiencies and the other way is to make it so complicated that there are no obvious deficiencies.” In other words, no. That doesn’t mean that all programs and operating systems are created equal from a security standpoint — they aren’t — but the fact remains that so long as we want people to be able to load and run new code on their machines that can do interesting and powerful things, there will

be the opportunity for that code to do bad things, too. The challenge is for us to find ways to maintain people’s freedom to distribute and run new code, while minimizing the damage that comes from the bad stuff — so people aren’t unduly driven to information appliances that are much more locked down, or to lock down their own PCs.

2. Without endangering the generative qualities of the internet, what could (or should) government do to regulate the internet in the name of consumer protection? Looking at the results of the Consumer Reports report *Leap of Faith*, I think it’s safe to say that there is already consumer demand for increased stability and security in computing platforms. But at the same time, I think that it is important to maintain the Internet’s generative qualities that have allowed so many people to lend their creativity - the very innovation that has made the internet so great. In your article, *The Generative Internet*, you write, “Cyberlaw’s challenge ought to be to find ways of regulating -though not necessarily through direct state action - which code can and cannot be readily disseminated and run upon the generative grid of Internet and PCs, lest consumer sentiment and preexisting regulatory pressures prematurely and tragically terminate the grand experiment that is the Internet today.” In speeches and articles, you have suggested that advances in software and operating systems might enable collective regulation. Your own involvement in a number of non-governmental projects, such as StopBadware and the OpenNet Initiative, demonstrates alternative forms of collective regulation. Should the state also play a role? If so, what do you think the government’s role in the regulation of the internet should be?

I think the government could play an important role in at least two ways. First, money. It may sound trite or even greedy, but it’s worth noting that a modest investment by the federal government in network research (and some implementation) through the Defense Advanced Research Projects Agency and the National Science Foundation paved the way for the Internet of today — and was certainly a necessary condition to its current success. Funding research in shared public resources to help people evaluate code and make informed decisions about it would be very, very helpful — in just the way that a shared domain name system (for all its politics) has been useful, and an appropriate counterbalance to the private search engines of the day. Second, I think private gatekeepers, whether for-profit or non-profit, could benefit from some guidelines on minimum standards for the judgments they make. We need some fair but easily-implemented models for how judgments about what is spam and what is not, or what is bad code and what is not, can be fairly made. The market goes some way to disciplining those who make these judgments, but there is plenty of room for innovation — a kind of civil procedure for Net judgments. I’m not calling for outright regulation so much as I am for innovation. I think those who make these tough calls (say, whether to filter an email) would actually welcome some best practices here. I’m continuing to think and write about this, so I hope to have more to say shortly.

3. Will traditional video regulations move to the Web - by legislative and/or judicial act - as more video moves online?

I hope not. Traditional video regulations might have made sense when (1) bandwidth was scarce and (2) the broadcasters were a pretty elite club, ones with big income streams who could afford lawyers to parse FCC and other regulations and then abide by them. Video streaming is just another Internet application. The fact that it resembles a current non-Internet activity will clearly lead to some tension. As we know, it’s strange for telephone calls to be subject to one set of standards while Internet-based telephony (in particular pure computer-to-computer calling, or device-to-device calling if both are hooked up to the Net) is not. But this may be an invitation to loosen current regulations more than to carry them over. In Europe the EU is considering a new directive that would try to regulate certain kinds of video streams as if it were television — and it’s currently rightly baffled about what makes a video stream television-like enough to warrant that extra measure of regulation. For example, think how much effort would have to go into the requirement that video streams with certain content only air after certain hours, when users’ time zones aren’t reliably known. There, such regulations are meant to protect kids from stumbling

onto content they shouldn't see, and there may be other ways to accomplish that goal, such as configuring browsers so they can advertise themselves as only wanting to see certain kinds of content — regardless of time of day.

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Martin E. Abrams and William Halal Answer Questions on the Tech-ade Blog!

In October, we provided members of the public with an opportunity to pose questions to Martin E. Abrams and William Halal as part of the FTC's "Ask the Experts" series. Although we did not receive any questions from the public, we took the opportunity to ask both experts some questions that we believed might be of interest to the public. Their responses are provided below. Please feel free to share your thoughts on these topics using the comment box underneath this entry, and check back for more responses from our expert bloggers in the coming days!

Martin E. Abrams is Executive Director of the Center for Information Policy Leadership at Hunton & Williams LLP [<http://www.hunton.com/Resources/Sites/general.aspx?id=45>]. He has nearly thirty years experience as a policy innovator working to find practical solutions to privacy and security problems.

1. Tell us about the Center for Information Policy Leadership. Why was it founded, and what are its primary goals?

First, I must be clear that these remarks reflect my views and my views only. They do not reflect the views of the Center for Information Policy Leadership, Hunton & Williams LLP, or their clients or members.

The Center for Information Policy Leadership is a think tank within the law firm Hunton & Williams LLP. We were founded in 2001 to think about the portions of information policy –privacy and information security – where there is room for improvement. We believe that information should be used to create economic and social value, but done so in a fashion that is under-control. Individuals should have some space to define themselves and be free of information caused harm. The Center is funded by member companies that believe in our mission. They include banks, pharmaceutical manufacturers, tech companies, consumer goods, and information services. The Center played a key role in the global development of more readable privacy notices. Our current projects focus on global privacy transfers, information security, the emergence of privacy laws in Asia, and future privacy structures in the United States.

2. What do you think are the most positive results of the globalization of business processes for consumers? What do you feel are the most negative results of this globalization?

Globalization has led to increased competition and greater wealth for more people in more

places. I have a 25-year old colleague in Beijing who has professional employment that would not exist without globalization. We have a growing middleclass in a capitalistic Vietnam, and emerging entrepreneurship in Poland. A global middleclass is the best product of globalization. The benefits for American citizens are greater competition driving prices lower, and international growth rates that create opportunities for Americans.

Good enterprises are not the only ones that have globalized. The bad guys have become global as well. Fraudsters are always hard to catch, but when they are in the Ukraine, Russia, and Nigeria it is doubly hard.

3. Do you think that the level of globalization that exists today was anticipated ten years ago? What do you anticipate for the next ten?

The pace of globalization surprised me, not that markets became global. Many factors led to faster globalization. Most we anticipated. However we never anticipated that the combination of the factors would be a catalyst for the pace of change we see today.

The pace will continue to accelerate. However, we can't predict where the growth will take place. Will India run into a shortage of English speaking workers? Will Vietnam's growth accelerate to double digit levels? On the other hand, will the friction of fast growth lead to political dislocation in many of these countries? None of us are smart enough to answer these questions.

4. How can we expect privacy protection across borders? What are some safeguards we could implement to make this happen?

The key words are accountability and cooperation. Organizations must be held accountable for the information policy promises they make, and privacy enforcement agencies need to have the tools to cooperate to hold them accountable. The Safe Guards Rule requires financial organizations to be accountable for protecting information, and the FTC has expanded those concepts to commerce as a whole. The Safe Web legislation, not yet passed by Congress, is one of the tools that make cooperation possible. Jennifer Stoddart, the Canadian Data Protection Commissioner is leading a project at the OECD to foster cooperation between privacy agencies. APEC is holding a workshop in June 2007 to encourage cooperation between privacy commissioners.

5. What are "global data flows"? What data does this refer to specifically? How does the emergence of these data flows facilitate a growing global economy?

When I call a help desk located in Pakistan I trigger global data flows. My phone number is shown on the clerk's screen, and is matched to a caller ID network, a data flow. My warranty records are accessed, another data flow. I am out of warranty and need to pay for services triggering even more data flows. The record of my service call triggers another set of data flows. All these flows are global, and the data will flow differently based on the time of day, day of the week, and month of the year. Data in an information age flows like water in a canal system. Ten years ago a data flow was an entire file placed on an airplane and processed in a different location. It is easy to regulate the copying of a complete file, and much harder to regulate the data exchanged to facilitate a consumer service call.

6. How do you think we should make multinational corporations accountable to their customers all over the world?

Companies make promises to their customers locally, and we need to hold them to those promises. It is as simple as that. I don't need to have the same law everywhere to do that. It isn't a matter of what the law is where the data is processed; it is a matter of holding the company accountable for the promises made locally. Typically that authority already exists.

7. What new technologies are going to have the greatest impact on the increasing globalization of business?

Ever faster digital communications technology.

8. What is your definition of a meaningful Safe Harbor policy? What do you think about EU privacy rules on keeping data from flowing to unprotected US companies?

I believe the Europeans would have been successful by assuring the importers of data from Europe remained accountable in Europe for the processing of their data in the United States. Safe Harbor could be improved by putting the burden on the exporter, not the importer here in the United States. Our accountability rules and similar rules in Canada put the burden on the exporter not the importer. The exporter is close to the consumer and close to the local regulator. It is most rational to put the burden close to consumer.

9. What do you think the likelihood for success is for the Asia Privacy Framework? What would be your ideal privacy framework?

We should be talking about Asian privacy frameworks. Privacy in China will be very different from privacy in Pakistan or even Vietnam. I have advised leaders in Asia to build privacy systems that match their own cultures, legal system, and governmental structures. Every country may have their own domestic privacy structures as long as systems are in place to respect the promises that come with data collected under other systems. That is exactly what APEC is about, assuring every country's privacy culture is respected, and the promises that come with data will be enforced. Enforcement must be based on accountability rules that require that promises are kept. There are baseline principles that evolved from the OECD guidelines, but the bottom-line is respect for others.

European adequacy is based on the concept that every country will have privacy rules that are a mirror image of everyone else's. That is ethnocentricity at its worst. Cultures are different and so are privacy expectations. International data protection must respect local rules. That means giving Germans the privacy they are promised, and doing the same in Malaysia. If one goes back to the fundamental research published by Professor Alan Westin in 1967 one learns that privacy is organic, but practiced differently in even culture. We need to respect those differences.

* * * * *

William Halal is Professor of Science, Technology and Innovation at George Washington University. Since 1985, Halal has conducted the TechCast Project [www.techcast.org], in which he surveys experts periodically to forecast technology breakthroughs in key fields. TechCast.org serves as a virtual think tank that pools the knowledge of global experts and distributes forecasts in real time.

1. In layman's terms, how does TechCast pinpoint the dates for adoption of new technologies?

We scan the media to create a "breakthrough analysis" summarizing background information on each technology. Then our 100 experts review the analysis and provide estimates of the most likely year each technology will enter the mainstream, the size of its economic market, and their confidence in the forecast. The system crunches the numbers automatically and updates forecasts in real time for distribution to our subscribers.

2. Why has the TechCast predicted that Alternative Energy will not breakthrough until late in the next decade, and what do you think this breakthrough will entail?

The transition to alternative energy is historic and will take decades. Today, 17 % of all energy comes from alternative sources, and our estimate is that 30% will be alternative by 2020 roughly. That's a big change. It will require increases in the use of windmills, biomass (ethanol, etc.),

nuclear power, solar energy, and conservation.

3. What breakthroughs do you think will present the most dramatic changes to our daily lives in the next ten years?

Computer intelligence of all types will begin to permeate life in the form of robots and intelligent agents, or avatars, that serve as virtual assistants, tutors, and other functions. I like to think of it as the automation of routine human thought. This raises profound questions like, "Is there an essential difference between human intelligence and computer intelligence?" Most people think there is a fundamental difference, but they could be wrong. After all, everybody thought the Earth was flat and the center of the universe for thousands of years. I think we will answer that question in the next 10-20 years.

4. How accurate have TechCast's predictions been in the past? What is the measure for this accuracy?

Variance of forecasts over the 15 years we have data averages +/- 3 years, and we have seen "arrivals" within this same error band. We have also done studies using two sets of experts, and the forecasts compare within 1 year or so.

5. How do you determine when a new technology has permeated a population, considering digital divide issues?

We instruct the experts to focus on industrialized nations, like the U.S., E.U., and Japan.

6. What makes a technology ready to break through? What is the "recipe for success"?

A number of factors may be involved, such as the amount of investment in research, maturity of the scientific field, and sheer luck. But emerging technologies tend to follow a fairly well-defined adoption cycle, or trajectory, characterized by an S-curve that is rather predictable. Once we identify a new breakthrough and track it for a few years, we can get a fairly good handle on its trajectory.

7. Do you think technology has made our lives better or worse?

I don't think many would rather live in the feudal/pre-industrial era when average people labored on farms without health care, education, sanitation, communications, or the other technologies we take for granted. But we do pay a severe price for this progress in the form of congestion, bureaucracy, pollution, and other problems of today. Technological progress is a constant trade-off between new advances and new drawbacks.

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PROTECTING CONSUMERS IN The Next Tech-ade

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[Martin E. Abrams and William Halal Answer Questions on the Tech-ade Blog!](#) »
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Anticipating the Tech-ade Hearings: Convergence of Media

Thursday 2 November 2006

For years, people have picked up the telephone when they need to make a phone call, turned on the television when they want to watch a program, and logged on to their computer when they wanted to check their e-mail. Each of these media has, until very recently, stayed separate from one another, each governed by a unique set of regulations.

Today, this is changing rapidly. A mobile phone can be used to take a photograph, a television can be used to access a digital viewing menu, and radio shows can be accessed on the Internet. In these instances, different media—broadcasting, telecommunications, and computing—have migrated from their original platforms and moved towards a point of technological **convergence**, driven by the fact that they all can be digitized.

The logical endpoint of convergence is that all services will be accessible through one single screen, via one single cable. As media becomes uniformly digital in form, interactivity between consumer and media is increasingly possible—such as has been seen with digital television—as is mobility of a media-transmission device—such as has been seen with personal digital assistants (PDAs) and mobile phones.

There is still a ways to go before we reach this point. Converged technological devices do not always bring the promised great ease of use and comfort: for instance, is watching a movie on a portable device more (eye) trouble than it is worth? Furthermore, reliance upon one single device for multiple technological needs is risky, as the device could break down and leave its user stranded. Finally, current technological infrastructure may be unable to handle multiple uses as volume and therefore demand upon it expands. The progress of convergence may depend on the expansion of wireless connectivity in order to facilitate the merger of all media into digital form.

Make sure to check back here during the Tech-ade Hearings, when we will be reporting on our panelists' more detailed input on the phenomenon of convergence and its implications for the consumer!

Relevant Panels:

Convergence and What it Means for the Coming Tech-ade

Tuesday, November 7, 2006, 4:30-5:30pm

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« [Fran Maier of TRUSTe Participates in FTC's "Ask the Experts" Series!](#)

Paying Your Restaurant Bill in the Next Tech-ade

Posted on [Thursday 2 November 2006](#)

With various risks accompanying current payment forms and systems, businesses and consumers are gravitating toward new methods. Convenience and security are two of the driving factors in developing new payments. At the hearings, the FTC will examine several of the payment forms that are gaining acceptance and may dominate in the next Tech-ade. A couple of examples in the restaurant industry illustrate that sector's pro-active approach to security issues.

VeriFone, Inc., a San Jose-based producer of electronic payment devices, released VeriFone On the Spot payment systems solution in May 2006 to respond to one of the restaurant industry's biggest security gaps: the point in the meal when the server steps away with the patron's credit card to scan it. On the Spot, one of VeriFone's Vx 670 products, offers a solution to this potentially insecure transaction. The portable device, connected to a wireless network, is presented by the server to the restaurant patron at the point-of-service so the patron has possession of his/her credit card when paying the restaurant bill.

According to Rob Regan, General Manager of VeriFone Hospitality Systems Group, this device "has been a missing piece in the world of payment card acceptance." "Restaurants want to be more pro-active, to provide more security for guests," says Regan, and they like a technology that "secures payment at the point-of-service" and thus "removes liability from the restaurants." According to Regan, "We looked at what we had done in the quick service market, and we asked 'how do we deliver a secure solution like that in the right way for restaurants?'

In particular, VeriFone's On the Spot device eliminates a practice known as "skimming," which occurs when a server walks away with the customer's credit card and scans the card into a separate reader that transmits the card data elsewhere, ready to be used for fraudulent acts such as fake credit card production. Un-watched credit cards are also a target for server entrepreneurialism, where the server adjusts a tip to his/her advantage. Restaurants simply do not have the resources to track this sort of fraud on their own, says Regan.

To ensure that VeriFone On the Spot's wireless operation is not open to security risks of its own, the system uses Wi-Fi Protected Access (WPA) to strongly encrypt data when it is transmitted straight through the device. According to Regan, WPA-secured connections have never been cracked, and they are recommended by major credit card companies. Regan said that along with reliable security, a mobile payment device had to be "very small and very durable" to catch on in the restaurant world. According to Regan, "Technology advancements played a big role" in the creation of the On the Spot device, and the convergence of wireless networks and a demand for

secure payment systems made it “the right place at the right time” for this product.

For customers who use debit cards—which comprise more than 50% of restaurant transactions—On the Spot includes a keypad for entering in a PIN number, which are encrypted at an even higher level to prevent fraudulent uses of the debit card. On the Spot “eliminates the server ever having to touch the card,” says Regan, “You wouldn’t want to give your social security card or driver’s license to someone, so why give your credit card up?”

At a restaurant in Washington D.C.’s Georgetown neighborhood, one manager has eliminated her need to rely upon another frequent source of payment insecurity: cash. Some consumers might be accustomed to having their credit cards turned away at dining establishments that prefer not to deal with the costs imposed by credit card companies. However, few are probably acquainted with the opposite situation: having one’s cash turned down in favor of a credit card.

This is what Snap Café restaurant manager Margarita Uricoechea decided to instate after years of worrying about the insecure aspects of dealing with cash. According to Uricoechea, it was a risk to go out of town and leave the business in the hands of someone else with cash revenue readily available. Furthermore, Uricoechea worried about situations when she was forced to carry around a large amount of cash, such as going to the bank. She pointed to an instance when she lost 500 to 1000 dollars. Finally, the simple hassle of making change for large bills made refusing cash an increasingly tempting proposition.

With all of this in mind, Uricoechea decided to look into implementing a credit card only policy at Snap. “Is this a stroke of genius, or am I missing something,” she recalls asking herself. She vetted the idea to her lawyer to make sure it was legal—it was, according to the U.S. Treasury—and she then called the companies of the credit cards her restaurant accepts to negotiate a lower rate from them. Uricoechea pointed out that the companies would triple their volume because of her credit card only policy, and they agreed to lower their rate per transaction. “Cash has a price too,” Uricoechea notes, pointing to the worrying and the frequent trips to the bank. On April 15 of this year, Snap Café began enforcing a credit card-only policy.

“People tend to think a small business only takes cash,” Uricoechea acknowledges, but she encourages the credit card policy and points out that it has ramifications for regulators too. A cash-only policy enables tax-avoidance, because it is easier not to report cash earnings. Although Uricoechea acknowledges that Snap customers are often surprised and sometimes dismayed at the credit card only policy, she says that business has not declined and that people ultimately give in. As far as Uricoechea knows, restaurants have not been eager to follow her lead, though she would encourage it.

Check back in during the Tech-ade Hearings when more new payment methods will be discussed.

Relevant panels:

Changes in Payment Devices and Systems

Wednesday, November 8, 2006, 9:00-10:30am

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PROTECTING CONSUMERS IN The Next Tech-ade

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Fran Maier of TRUSTe Participates in FTC's "Ask the Experts" Series!

Posted on Wednesday, 1 November 2006

A couple of weeks ago, we provided members of the public with an opportunity to ask Fran Maier, Executive Director of TRUSTe, any questions they might have about authentication issues. TRUSTe is an organization that provides a seal of website authentication to reliable companies. Authentication, which involves verifying the digital identity of a user, has become a crucial component to keeping the web safe and secure as a global marketplace.

We received one comment but no questions, so we asked Ms. Maier to answer some questions that we thought might interest the public. You can read her responses to those questions, and to the public comment we received, below. Please feel free to provide your feedback using the comment box underneath this entry, and check back for more responses from our expert bloggers in the coming days!

1. Could you describe what TRUSTe does and how it fits into the authentication marketplace?

TRUSTe® is an independent, nonprofit trust authority that enables trust based on privacy for personal information on the internet. We certify and monitor web site privacy and email policies, monitor practices, and resolve thousands of consumer privacy problems every year. TRUSTe promotes standards for consumer notice and choice on the internet and in the evolving networked world, including email. Our Web Privacy Seal Program certifies Web sites' privacy practices to strict, generally recognized privacy protection standards. Our Children's Privacy Seal Program certifies that Web sites are complying with the Children's Online Privacy Protection Act ("COPPA") (we're an FTC-approved COPPA safe harbor), and our EU Safe Harbor Seal Program certifies that Web sites are abiding by European Union requirements for transfers of European citizens' personal data to the U.S. We also certify Web sites' email practices through our permission-based Email Privacy Seal Program, and we provide certification services for senders of commercial email in ReturnPath's Sender Score Certified program. Last November we announced the Trusted Download Program (now in alpha testing), which establishes the first industry-wide standards for developers of downloadable applications and will provide a whitelist to help consumers and business distinguish legitimate software from "spyware."

Authentication[1] of Web sites and email senders is essential if the online marketplace is to continue to flourish. Web sites that seek certification by TRUSTe undergo a rigorous review process. We evaluate their privacy practices and make sure that their privacy statements are accurate and transparent. Consumers who visit a site that posts the TRUSTe seal can easily

verify that the site is in fact TRUSTe-certified by clicking the TRUSTe seal posted in its privacy statement, which directs them to a validation page on our secure server. That's authentication at the Web site level. In the email authentication space, TRUSTe supports and promotes the development of technical standards such as Project Lumos[2] that allow legitimate businesses to establish their reputation as respected and reputable senders of email. TRUSTe also supports the use of e-mail authentication schemes such as SPF/SenderID and/or DomainKeys/DKIM to verify that an IP is authorized to send email on behalf of the domain it purports to represent. Verifying identity is critical to fighting spam.

2. What are the different types of seals offered by various organizations and what do they mean?

Third-party seals demonstrate that a business to which consumers entrust their personal information takes that trust seriously. There are five types of seals[3]: **Reliability seals**, such as SquareTrade, BBB Reliability Seal, and Comodo Authenticity, vouch for a company's identity. They typically validate the mailing address of the company, its telephone number, and email addresses. **Security seals**, such as Verisign and GeoTrust, validate that a company has Secure Socket Layer (SSL) protection for transmission of sensitive data via Web forms. **Vulnerability seals**, such as HackerSafe and SquareTrade, signify that a third party scans the site daily, weekly, or monthly looking for common security vulnerabilities that could be exploited by hackers. **Privacy Seals**, such as TRUSTe and BBBOnline, signify that a company has privacy practices that respectfully use the personal information consumers provide. Privacy seals are the most difficult to obtain, as they require companies to undergo an extensive certification process that exposes internal data collection and usage processes. A privacy seal is the only type of seal that probes what happens behind the scenes. **Consumer Ratings** seals offer a great glimpse of what consumers can expect from a shopping experience with a retailer. Many consumers find reviews from fellow shoppers to be a useful measure of a company's trustworthiness. We believe that the ideal combination for worry-free online shopping is a privacy seal and a positive consumer rating.

3. How does a company get a TRUSTe email or web privacy seal?

An applicant to the TRUSTe program must complete a rigorous nine page self-assessment that provides a detailed account of its information collection, use and sharing practices. Then the company's TRUSTe client service manager conducts a site review, evaluating the self-assessment against the company's actual Web site or email procedures and disclosures. The company is then given instructions that may require changes in its practices and disclosures, to ensure that its online privacy statement is accurate and meets our program requirements.[4] We award a TRUSTe seal only when all of our requirements are met. About 12% of applicants to TRUSTe seal programs fail to complete the certification process.

TRUSTe certification and oversight do not end with the awarding of a TRUSTe seal. We "seed" our licensees' email lists, conduct technological scans of their web sites, and regularly review their site practices, all with the aim of keeping our licensees compliant and helping them to maintain consumer trust. In addition, consumers use our Watchdog dispute resolution process[5] to help us bring privacy concerns to our licensees' attention. So, in a larger sense, certification is really an ongoing process.

4. Can websites have fake seals, and, if so, how can consumers tell the difference?

The problem of "spoofed" seals[6] is certainly a serious one that any seal program must address. On our homepage at www.truste.org, we alert consumers to sites that post our seals without our permission, and we invite consumers to report sites that post a fake or unlicensed TRUSTe seal to us. Consumers have been important partners in our efforts to combat the unauthorized use of our seals.

There are steps that consumers can take to ascertain whether the site they are visiting is posting a valid seal. All of the major seal programs, regardless of type, offer a link to an authentication page on their sites. The content of the authentication page may vary, but there are ways of determining whether the web site a consumer is visiting is authorized to post a seal. The first place to check is the site's address bar: if, for example, a consumer clicks on the TRUSTe seal in the site's privacy statement and the site that pops up begins with anything other than "<http://www.truste.org/>," the site is not a TRUSTe seal holder. Consumers can also check to see whether the seal program authentication page they visit refers to the retail site where they are shopping or to the owner of that site. If, for example, a consumer links to the authentication page from "www.acmecompany.com," and the seal program's authentication page refers to "www.xyzcompany.ru," the link is fraudulent.

5. How would you respond to the following comment, received on our blog:

"Authentication is fine for web sites where you are transacting business.

Authentication for email is useless. This would require each individual email user to go through the expense to validate their personal emails. The law MUST require ALL spam be labelled as spam."

Authentication helps combat spam in two ways. First, email authentication schemes[7] such as SPF/SenderID and DomainKeys/DKIM can prevent the use of forged domain names in the e-mail, as is commonly seen with fraudulent "phishing" spam. This type of authentication would allow an ISP to reject email claiming to be from a company that has not actually authorized that IP address to send email on its behalf. Additionally, reputation schemes based on senders authenticating their domain names enable sending practices to be better coupled with authenticated identities, leading to better aggregation at the identity level of both good and bad sending practices. The result is additional data for whitelisting and blacklisting email senders.

6. What kinds of initiatives do you think we're likely to see over the coming 10 years to help ensure that consumers know who they are dealing with in remote transactions, and to ensure that businesses know they are dealing with the right consumer?

In addition to greater deployment of email authentication and reputation systems, the development of a complaint feedback loop standard (Abuse Reporting Format or ARF[8]) will also lead to a reduction of unwanted email. Mail senders often don't realize that their mailings, even though consensual, are annoying recipients and are regarded as unwanted. Receiving complaint rate data will help senders switch from their current "no news is good news" perspective to a sending program that better matches the expectations of their subscribers and provides improved customer satisfaction.

7. How will the "Trusted Download" program TRUSTe is launching help consumers and businesses?

Today, if a computer is connected to the internet, software may be downloaded and installed on it without notice or consent. Consumers are understandably frustrated when they discover unexpected software on their computers. In some instances, the software application provides real value; in many instances the software may be considered "spyware" – and it's difficult for consumers and businesses to tell the difference.

The Trusted Download Program[9] will help businesses and consumers by serving a "whitelist" of certified applications to advertisers, distributors, consumer portals and other interested parties, and thereby identifying trustworthy applications. It will protect the valued brands of online advertisers by enabling them to know which applications are trustworthy and which are not. Last but by no means least, although the Trusted Download Program is not a consumer-facing seal program, it will benefit consumers by noticeably improving the consumer experience with downloadable applications through better disclosures and more control.

- [1] <http://truste.org/about/authentication.php>.
- [2] http://www.espcalition.org/project_lumos.php.
- [3] http://www.truste.org/articles/seals_comparison.php.

- [4] <http://www.truste.org/requirements.php>.
- [5] <https://www.truste.org/consumers/compliance.php>.
- [6] http://www.truste.org/articles/avoid_fake_seals.php.
- [7] http://en.wikipedia.org/wiki/Email_authentication.
- [8] <http://www.shaftek.org/publications/drafts/abuse-report/>.
- [9] <http://www.truste.org/trusteddownload.php>.

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[Fran Maier of TRUSTe Participates in FTC's "Ask the Experts" Series! »](#)
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Anticipating the Tech-ade Hearings: What is RFID?

Posted on [Monday 30 October 2006](#)

Although many consumers have likely never heard of **Radio Frequency Identification (RFID)**, many of us may interact with the technology more in the next few years. We plan to examine RFID at the Tech-ade Hearings to figure out what impact new uses of this technology may have on consumers.

An RFID system enables data to be transmitted without any physical contact or line of sight between a mobile device, known as a tag, and a scanner that reads the data from the tag. The data pertains to information about the product that it tags, and today, RFID is mostly used for supply-chain tracking, though it has many possible future uses. For instance, combined with Global Positioning System (GPS) technology, RFID could be capable of tracking the location of a product.

RFID is currently being used in objects whose functionality many of us take for granted, such as public transportation fare cards and electronic toll collection passes, new developments that have made passing through train station gates and tollbooths a faster endeavor for busy commuters. Indeed, public transit riders may be some of the most well-acquainted with RFID technology, even if they do not know it. Major transportation systems use RFID for fare cards that work like debit cards, including the Washington D.C. Metro's SmarTrip card, and the Chicago Transit Authority's Chicago Card.

RFID tags may replace barcodes in the future because of their greater capability to store information. Not only can the tag identify the product type, but it can also identify the precise product. RFID has the potential to allow for much more targeted product recalls by pinpointing only the affected items, therefore avoiding a recall of an entire supply of a product. For instance, if the authenticity of a pharmaceutical product or freshness of a food product is in question, RFID technology makes it much cheaper and easier to verify the history of where that product has been in the supply chain.

As is the case with many next Tech-ade technologies, concerns about privacy and security come along with the exciting potential of RFID. One fear is that someone with a scanner who gets close to an RFID-enabled product—like a credit card—can scan the information without the knowledge of the person holding the card. There are also concerns about the ability of hackers to alter data contained on RFID tags or even to introduce viruses through the tag. Thus, the future success of RFID could depend on the extent to which consumers see this powerful technology as a threat to their privacy and whether businesses see them as a potential opening for viruses,

though the high costs of RFID tags and related systems are currently more of a deterrent for businesses.

If it survives these fears, RFID may pop up in all sorts of capacities, from tracking lost pets to ensuring that medicine bottles remain safe from tampering. What are your thoughts and ideas for RFID technology? Comment below, and check back here during the hearings for more information about RFID, which will be the subject of an entire Tech-ade panel on Tuesday, November 7, from 3:00-4:30pm. The topic of RFID will also be featured in the *Computing Power* panel, also on November 7, from 1:15-2:45pm, and on the panel exploring *Changes in Payment Devices and Systems* on Wednesday, November 8, from 9:00-10:30am.

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A Debate on New Marketing Techniques

Posted on [Monday 30 October 2006](#)

Today, the Tech-ade blog features a debate between Dave Morgan, founder and Chairman of TACODA Systems Inc., a leading firm in behavioral targeting advertising technologies, and Dr. Joseph Turow, the Robert Lewis Shayon Professor of Communication at the University of Pennsylvania's Annenberg School for Communication, and an expert in mass media, Internet, and marketing issues. As some of the most knowledgeable authorities on advertising, Morgan and Turow will argue the merits of behavioral targeting and other new marketing techniques to offer insight into an emerging trend of the next Tech-ade. We encourage you to post a comment and share your thoughts on this topic. If you have a question for our guest bloggers, please submit it in the comment box below by **Wednesday, November 1**, and Morgan and Turow will respond later in the week. Both will also serve as panelists during the Tech-ade Hearings.

HIDDEN MESSAGES;

IS NEW TECHNOLOGY EMPOWERING CONSUMERS - OR MARKETERS?

BY JOSEPH TUROW

During most of the 20th century, those in the advertising and marketing business made two basic assumptions. The first was that communication was one-way, from creators to audiences. Everyone understood that people couldn't really talk back to their TV set or magazines; they either agreed with what they saw or read, or they didn't.

The second proposition was that people paid attention to the ads. Of course, advertising professionals knew that readers skipped ad pages and made excursions to the kitchen or bathroom during commercials. Yet they took this as part of the challenge: their job was to create ads that would make people pay attention.

Today, marketers can't rely on those same assumptions. Where the old-media system was one-way, today's new media technologies allow consumers to talk back - and tune out. On Internet message boards and blogs, people can slam products they don't like, celebrate certain brands over others, and help shoppers find the cheapest prices. Equally disturbing to marketers, new technologies - from digital video recorders like TiVo to pop-up killers and spam filters - have given consumers more power to avoid advertising. And studies show that they use that power. A 2005 report from the market research firm Yankelovich Partners warned marketers that 69 percent of American consumers "said they were interested in ways to block, skip, or opt out of being exposed to advertising."

Advertisers see these changes as a direct threat to the way they've done business for decades. James Stengel, Procter & Gamble's influential marketing chief, proclaimed in a much-discussed 2004 speech that "consumers are less responsive to traditional media" and "are embracing new technologies that empower them with more control over how and when they are marketed to."

New technologies do give consumers unprecedented leverage over the marketplace. It's crucial, however, to realize that marketers are using these same technologies to undermine that leverage, making it harder than ever for audiences to escape, and resist, their advances. One method, a practice called "seeding," builds on the long traditions of publicity, product placement, and public relations. As Barb Iverson, a top executive for the Weber Shandwick public relations agency, wrote recently in PR Week, the goal is a "communication effort [that] can enlist, equip and harness the power of trusted, informed and credible messengers."

Increasingly, as marketing executive Dave Balter noted last year in Advertising Age, this can mean "hiring actors, or shills" - apparently ordinary people who reflect the target audience - in clandestine campaigns that "may consist of seeding chat rooms, blogs and forums with paid-for messages." Even real space isn't safe: such hired messengers might be seen, Balter went on, "hanging out in a Starbucks with the product conspicuously displayed, awaiting the unwitting passerby to start a dialogue." Procter & Gamble's Tremor program, for example, solicits teens to talk up products to friends online and off - without asking them to disclose that they are being compensated.

Marketing executives have told me that such "seedings" are common, but because some in the industry consider the practice "an ethics quagmire" (to quote Marketing magazine), it's hard to know just how common, as most practitioners don't make their specific activities public. Meanwhile, marketers are also honing their ability to follow consumers wherever they go, using another method made more powerful by the changing media landscape - a method they call "behaviorial targeting." If you have been looking up information about cars on the web, you may well start receiving car ads even when you're not on auto sites, as ad companies can now track and deliver ads to you across hundreds of sites.

What's more, the ads you see on the Web are increasingly tailored to what marketers perceive as your demographic - based on your age, where you live, your education, and your movements online and off. The latest technology, not yet implemented but coming soon, enables websites to customize the selection of articles and videos that reach you depending on what they know about you from your registration data, your movements on their site, and even information about you that they've purchased from a third party.

For now, such targeting is the province of the Web, but it won't be long before it migrates to television and even to offline stores. A firm called Visible World already has technology that can customize cable TV commercials on the fly. And Stop & Shop supermarkets in New England has tested a "shopping buddy" that can change the discounts it offers you as you walk through the store based on your buying history. Of course, marketers have long used hidden strategies to sell us merchandise and ideas. These new approaches, though, go far beyond previous practices. The executives I've spoken to insist that they're necessary in the hypercompetitive new media environment, and that leading edge marketing and media firms will continue to customize ads and tailor content to consumers in ever-narrowing niches. "We are not in control anymore, but that's OK," Benjamin Palmer, president of a hot Internet ad firm called The Barbarian Group, was recently quoted in Advertising Age. "If we do this right, we can actually have a good relationship with 'the consumer' for once."

That's the current line of many marketing and media practitioners. The problem is, from a consumer standpoint, they are not doing it right. Media firms are creating a new world order in marketing communication to make sure that their messages get through to us - and in ways that make it increasingly difficult for us to know who the messenger is, whether the message is

trustworthy, and whether we're getting the same offer as everyone else.

GIVING PEOPLE ADS THAT THEY ACTUALLY WANT

BY DAVE MORGAN

Advertisers can no longer load up newspapers, magazines, TV shows, radio or online programs with generalized promotional messages just shoveling ads at consumers for whatever they happen to be pushing that month. Those days are ending. People are tuning out mentally and electronically. They simply won't take it anymore.

The media world is changing, choice is taking over. Media and advertising as we have known them are undergoing an enormous transformation. While the Internet may have helped spark these changes, the seeds were sown long ago. The days of evening newspapers, 4 broadcast channel television, long distance phone calls only on Sunday nights, paying the sticker price for cars, and grocery stores that stock only one kind each of white and brown bread are over. Today, consumers have unprecedented access to more news and more entertainment in more places on more devices at more times than ever in history. The future of media and marketing is all about variety and choice.

Media fragmentation and ad clutter. With the proliferations of media and entertainment everywhere, from the mythical 500 cable channel TV to mobile phones that play music to hand-held devices that play download movies and TV shows to billboards that talk to you, come two new realities for advertisers and consumers. For advertisers, this means audience fragmentation. Now that people are finding more and more content that is closely tailored to their particular desires, audiences for advertisers on any one TV show or any one magazine have been getting smaller and smaller. To try and reach a meaningful audience share, advertisers are pushing messaging onto every possible media platform. Or in the case of the broadcast networks are trying to replace shrinking revenue by adding more minutes of advertising per programming hour. For consumers, this means irrelevance and clutter. People today are being inundated with more and more ads that have less and less relevance to their lives. Even media channels that can support very precise audience ad targeting, like the Internet, have this problem. Almost no one can go to a web page today and be blown away by extraordinarily relevant ads. In fact, the top two complaints that consumers have with online advertising are that they receive too many ads and that the ads they receive are not relevant to them. More media choice is great, but advertisers have a long way to go before they can assure that the ads that they deliver are as valuable to consumers as consumers want them to be.

Consumers are taking control. The consumer response to this clutter and irrelevance is quite predictable. They are avoiding the ads. Services like Tivo and web browser ad blockers are doing elegantly today what was only possible before with constant trips to the kitchen or surfing on the remote control. As ad avoidance increases, advertisers and marketers must change their models and their approaches. They can no longer "push" ads to consumers; they now need ads that consumers will "pull." Consumer marketers now need to create ads that consumers deem relevant, so their first instinct won't be to avoid them. This means engaging in a true value exchange with consumers. This means creating new ways to deliver relevant ads so that they reach consumers when they might want them. This means actually developing relationships with consumers. This is new and it is not easy, particularly for traditional companies, but it is starting to happen, particularly on the Internet.

Learning to watch, look and listen. After decades of pushing ads at people, marketers are starting (thanks in large part to feedback they get via the Internet) to try to better understand their consumers and what they want. With Internet advertising and its capabilities to merge some of the best characteristics of display advertising and direct marketing, they are starting to watch their consumers and learn from what people like and how they react to creative variations and different offers. They are starting to learn better how to talk to them and how to advertise to them

in ways that they are most likely to notice their ads and engage with them and respond to them.

Ads will be tailored. Relevant ads will be in. Irrelevant ads will be out. Clutter will be reduced. Marketers will work more and more to reduce the number of ads that they deliver and to closely tailor their ads to both the content that is being consumed as well as the predicted interests of the people they want to reach.

Consumer behavior will drive advertising. The best predictor of what people are likely to do is what they have already done. Behavior predicts behavior. Marketers are going to pay more and more attention to what kinds of ads and what kinds of content that people like and they are going to tailor their messages and offers to give people more of what they want and less of what they don't want. To do this, they will begin to understand how to segment people by their behaviors just as in the past they segmented people by their socio- or geo-demographics. It used to be that the best way to give people relevant ads was to understand where they lived, now it is by what they do.

What is behavioral marketing? This new way of advertising, called behavioral marketing, will drive much of advertising over the next ten years. Behavioral marketing does not mean that all ads will be targeted on a one-to-one basis to consumers. Giving every person a different if not practical or efficient and frankly does not work well when you are a say, cola brand and want to talk to tens of millions of people. Instead, we will see marketers begin to "mass customize" their messages, anonymously segmenting groups of tens of millions into groups of hundreds of thousands that share certain interests and behaviors, and segment people into groups most likely want, thus respond to, certain kinds of offers. For example, you could image cars ads only going to people that have been looking at media (such as classified ads or new car reviews) that indicates that they are in the market for one. Baby formula ads will go to new or expectant families identified by spending lots of time looking for that kind of content.

What will behavioral marketing mean for consumers? It will mean fewer, more relevant ads, but it will mean that consumers will play a much more active role in the advertising process. It means that much of what they do relative to advertising and media will be watched and analyzed, with marketers hoping that by giving consumers better advertising, that they will be more likely to respond positively to them and likely to skip or block them We're moving into an era of conversational marketing.

What about the privacy issues? At the same time that we're moving into an era of conversational marketing, we're moving into an era of permission-based marketing. Consumers are now in charge and media companies and marketers are learning that explicit or implicit consumer, permission is the future of marketing. For marketers, behavioral marketing done well will mean achieving their business interests while respecting and protecting consumers' privacy. Fortunately, on the Internet where this form of marketing is being used first, there are already guidelines and best practices developing, much of them driven by early efforts by the Federal Trade Commission (FTC) and a coalition of online advertising companies, and the Network Advertising Initiative (NAI). These principles revolve around consumer anonymity, notice, and choice. Companies that practice behavioral marketing online today (disclosure: my company TACODA operates a behavioral-targeted online advertising network) follow these practices. We only use anonymous, non-personally identifiable data. We give consumers notice of the data collection and ad targeting in the privacy policies on our site and on each of the sites that we work with. We offer the consumers the ability to opt-out of our network. These practices reassure consumers that by visiting well known, respected online brands, their privacy will not be compromised.

Privacy protection is a competitive advantage. As advertising techniques like these mature and as consumers learn more about them and their various benefits and tradeoffs, we will almost certainly see privacy and choice emerge as key competitive advantages among media and marketing companies. Delivering great news and information and advertising will no longer be

enough, particularly as these techniques expand beyond the Internet to encompass ads on television. In the future, how companies honor privacy and choice will be key ways that they will differentiate themselves and how they market themselves to consumers. If the future of marketing is about giving consumers advertising that they actually want, no company will be able to get there without some level of permission from consumers.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

jf.sellsius

November 14, 2006 | [2:33 pm](#)

Very well written & enlightening post. Seeding can also be found on blogs. Blogvertising is another method to reach a target audience. Once again the ethical question arises whether the consumer need be informed that the blogger is a paid promoter/advertiser.

Anonymous

December 11, 2006 | [3:43 pm](#)

You forgot the third assumption - that people will not recognize they have been victims of social engineering. If it is stated up front, that is wonderful. But when you do something like healingwell.com, it is dead wrong. Don't assume you are smarter than most people, because you are not.

Sorry, the comment form is closed at this time.



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Anticipating the Tech-ade Hearings: User-generated Content and Social Networking

A big part of the story of the evolution of the World Wide Web has to do with **user-generated content**. User-generated content refers to websites that consist of contributions from average users as opposed to web publishers and broadcasters. Blogs, wikis, digital videos, and social networking sites all represent popular types of user-generated websites. Some of the biggest online success stories in the last five years have been the creators of platforms for user-generated content, such as the developers of sites like Facebook, Wikipedia, and YouTube.

Social networking websites have garnered high web traffic and considerable media attention for their unique user-generated model. Although the complexity of the software upon which they operate varies, these websites all generally allow members to create profiles with information such as interests and birthdays and to socialize with fellow users.

The websites Facebook, Friendster, and MySpace tend to be the most well-known social networking sites and often the most controversial. Facebook, which began as a social networking site for college students and has just recently become available to anyone, allows members to create groups for sports teams, school clubs, and general interest. The content of such groups are entirely user-generated.

The [Pew Internet and American Life Project's report on The Future of the Internet](#) [1] predicts that "By 2014 use of the internet will increase the size of people's social networks far beyond what has traditionally been the case." According to the Pew Report, the potential of any social networking site depends on the level of trust users have in the social interactions that take place online, especially considering the rapid expansion of many of the most popular social networks. Make sure to check back here during the Tech-ade Hearings, when we will be discussing these and other major Internet trends!

Relevant panels:

Social Networking – Trends and Implications for the Future
Monday, November 6, 2006, 3:00-4:15pm

User-generated Content – What does it Mean for Consumers and Marketers?
Monday, November 6, 2006, 4:15-5:30pm

[1] Susannah Fox, Janna Quitney Anderson, and Lee Rainie, The Future of the Internet, Pew Internet & American Life Project, January 9, 2005,

http://www.pewinternet.org/pdfs/PIP_Future_of_Internet.pdf, last accessed Oct. 23, 2006.

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Gard Jenssen

October 30, 2006 | 4:24 pm

The big question for me is whether any successful open standards for social netowrking will emerge. Naturally you should be able to “carry” your network and your carma with you from service to service. First when this happens will we be able to replace the physical handshake with a virtual one - and this is also a prerequisite for real mass adoption of social networks.

Another point is that social networks need to start getting nichy and have real purposes. MySpace is basically just covering the good old “I want a home page” instinct. LinkedIn is focussed on business but already too wide (half the world is in business). Orkut and Yahoo 360 are.. well what are they... they are places where you do what you like but where everybody are strangers. We need social networks for nerds, for doctors, for artists, for kids, for shoppers, for knitters, for social workers, for teachers, etc.

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A Look Back at the 1995 Global Hearings

Posted on [Thursday 19 October 2006](#)

A decade ago, upon the initiative of then-Chairman Robert Pitofsky, the Federal Trade Commission brought together academics, consumer groups, and industry members in an effort to learn about increasingly rapid technological developments of the day and their potential impact on consumers. Called the Global Hearings, this week-long event was held in November 1995, the dawn of a period of rapid technological change. The discussions that took place at the Hearings introduced the FTC to the full potential of many technological breakthroughs and shaped the Bureau of Consumer Protection's agenda for years to come. To this day, many of the FTC's key players credit the event with helping the agency to modernize its understanding of consumer protection issues.

"We felt that we were really on the cutting edge," said Lydia Parnes, the Deputy Director of the Bureau at the time of the Global Hearings and the current Director of the Bureau of Consumer Protection. Back then, the role that the Internet would play for consumers was still uncertain. For this reason, it was helpful that, "[the Hearings could] reinforce that electronic commerce was potentially very beneficial to consumers," according to Jodie Bernstein, the Director of the Bureau of Consumer Protection during the Hearings and currently Of Counsel at the law firm of Bryan Cave.

The Hearings primarily focused on the television, the telephone, and the computer. The FTC summarized the conclusions about the future of these media and their impact on the consumer in a May 1996 report on the Hearings entitled "[Anticipating the 21st Century: Consumer Protection Policy in the New High-Tech, Global Marketplace](#)," The report, which forecasted the growth of information technologies and accompanying interactive services, such as on-demand television, remains relevant even today. "I think we got a lot of things right," said Teresa Schwartz, then the Deputy Director of the Bureau and head organizer of the Global Hearings and currently a professor at George Washington University Law School.

[\(more...\)](#)

Filed under: [Uncategorized](#)

FTC Blogger @ 8:22 pm

[No Comments](#)

More Opportunities to Ask the Experts!

Posted on [Thursday 19 October 2006](#)

Next week, you will have two chances to connect with experts of the next Tech-ade and ask them about developments in their fields when Martin E. Abrams and William Halal answer questions as part of the Tech-ade Blog's "Ask the Experts" series.

Abrams is Executive Director of the Center for Information Policy Leadership at Hunton & Williams LLP [<http://www.hunton.com/Resources/Sites/general.aspx?id=45>]. He is available to answer your questions about global data flows and privacy and information security issues. He has nearly thirty years experience as a policy innovator working to find practical solutions to privacy and security problems.

Halal is Professor of Science, Technology and Innovation at George Washington University. He will be discussing what the Technology Revolution holds in store for businesses and consumers. Since 1985, Halal has conducted the TechCast Project [www.techcast.org], in which he surveys experts periodically to forecast technology breakthroughs in key fields. TechCast.org serves as a virtual think tank that pools the knowledge of global experts and distributes forecasts in real time.

To participate in either of these exciting online discussions, please submit your question(s) for one or both of these experts to the comments section underneath this entry or email them to techhearings@ftc.gov by **Monday, October 23rd**. Then check back here next week when our experts' answers will be posted!

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Filed under: Uncategorized

FTC Blogger @ 1:10 pm

[No Comments](#)

Nanotechnology to Be Studied by the Food and Drug Administration

Posted on [Wednesday 18 October 2006](#)

The Food and Drug Administration (FDA) is examining its regulation of nanotechnology, a potentially promising "next Tech-ade" scientific development. Nanotechnology, which is the design and operation of particles on an atomic scale—particles can be as small as one-billionth of a meter—is increasingly being used to make cosmetic and drug products. It is hoped that nanotechnology will be useful in a variety of products, including food, cosmetics, and drugs, but the effects of the tiny particles are still not fully understood. According to the FDA:

Materials made in the nanoscale size range can often have chemical or physical properties that are different from those of their larger counterparts. Such differences include altered magnetic properties, altered electrical or optical activity, increased structural integrity, and increased chemical and biological activity. Because of these properties, nanotechnology materials have great potential for use in a vast array of products. Also because of some of their special properties, they may pose different safety issues than their larger counterparts.

In August of this year, the FDA announced the creation of an internal task force [<http://www.fda.gov/bbs/topics/NEWS/2006/NEW01426.html>] to look into its regulatory standards for nanoproducts. The task force held a public meeting on the issue on October 10 [<http://www.fda.gov/nanotechnology/meeting1010.html>] to deepen the FDA's understanding of the technology and any potential concerns related to it. To learn more, visit: <http://www.fda.gov/nanotechnology/>.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Filed under: Uncategorized

FTC Blogger @ 3:15 pm

[No Comments](#)

A Survey of Corporate Blogs

Posted on [Saturday 14 October 2006](#)

Since the initial appearance of blogs in the mid-1990's, they have been used primarily by individuals as an easy way to communicate opinions to people with similar interests or to share personal thoughts with friends. According to the [Pew Internet American Life Project](#),^[1] personal blogs have grown increasingly popular as user-friendly blogging tools became available in the summer of 1999 and blogs received widespread attention from the media during the 2004 presidential election. Pew estimated in July 2006 that the U.S. blog population has grown to about 12 million American adults, or around 8% of U.S. adult Internet users.

More recently, corporations have begun to use the same medium, the blog, to communicate internally, with their employees, as well as externally, with consumers. There has been some reluctance among corporations, however, to dive into the latter category and host blogs that can be accessed by the general public. Corporate blogs, which typically feature the thoughts or opinions of a company executive and permit comments by consumers, run the risk of eliciting negative feedback or straying from a corporation's approved messages.

[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 12:08 pm

[No Comments](#)

Filing a Complaint at the FTC

Posted on [Friday 13 October 2006](#)

We recently had a comment on the blog that asked for information on how to file a complaint and the process that occurs when a complaint is filed. There are a few ways consumers can file complaints with the FTC. Consumers wishing to file a complaint online may do so at anytime by selecting the 'file a complaint' link located at the top of the Tech-ade Blog or by visiting ftc.gov.

Consumers may also contact the FTC by calling one of our toll-free lines to file a complaint or request educational material. For general fraud complaints consumers may call (877) FTC-HELP. Consumers wishing to report an incident involving identity theft may call (877) ID-THEFT. Consumer Information Specialists are available to answer calls, Monday through Friday from 9 a.m. - 8 p.m. EST. The toll free lines also offer automated answers to frequently asked questions about how to protect against fraud or identity theft and an automated brochure request system 24 hours a day, 7 days a week.

The information provided by consumers is entered into the FTC's secure database. The information may be shared with thousands of other Federal, State, and local law enforcement agencies for the purpose of protecting consumers. Although the FTC does not act on behalf of individuals, consumer furnished information is essential in aiding the FTC in detecting instances of violations of the law.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Filed under: Uncategorized

FTC Blogger @ 6:08 pm

[2 Comments](#)

The FTC Provides an Opportunity to Ask the Experts!

Posted on [Thursday 12 October 2006](#)

Next week, Richard Gingras, CEO of Goodmail Systems, and Fran Maier, Executive Director of TRUSTe, will be answering questions about authentication issues. Goodmail is an email authentication service that certifies companies with legitimate email practices, and TRUSTe is an organization that provides a seal of website authentication to reliable companies. Authentication, which involves verifying the digital identity of a user, has become a crucial component to keeping the web safe and secure as a global marketplace. These experts can answer your questions about ways in which private organizations are working to fight spam and identity theft online and can help you learn more about the growing use of trusted web-names to accredit online business.

To participate in this exciting online discussion, please submit your question(s) to the comments section underneath this entry by October 17th, 2006, or email them to techhearings@ftc.gov. Then check back here the week of October 23rd when Richard Gingras and Fran Maier's answers will be posted! This Q&A gives you a chance to connect with experts of the next Tech-ade and ask them about developments in their fields. This is the first of several planned "ask the experts" sessions that will be posted on the blog in the coming weeks.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Filed under: Uncategorized

FTC Blogger @ 7:53 pm

[1 Comment](#)

The FTC Invites Proposals for Tech Pavilion Participants

Posted on [Thursday 5 October 2006](#)

Help deepen the FTC's understanding of likely developments in consumers' core experiences in the next ten years! As part of the Tech-ade hearings, the FTC is organizing a technology and new product pavilion in order to bring participants in contact with the cutting edge products and services of the next Tech-ade, many of which will be discussed during the hearings. We are currently accepting proposals for the showcase and invite you, the public, to help us out. Please e-mail any proposals to techhearings@ftc.gov. Submissions must be received by October 13th in order to be considered.

Please note that the Tech Pavilion will not be an opportunity to sell products. Instead, we are interested in presenting a range of products or services that will demonstrate the benefits of various technologies that may be available currently or in the future. In the event that requests for participating in the Tech Pavilion exceed space limitations, we will select those technologies that we believe are most relevant to the conference presentations.

Like the hearings, the pavilion will be open to the public, including the George Washington University student body, and will bring to life the many dynamic topics that will be discussed at the hearings. The pavilion will be located in the Cloyd Heck Marvin Student Center just across the street from the hearings and will be open from 9 am to 5:30 pm on November 6-8th.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Filed under: Uncategorized

FTC Blogger @ 9:04 am

[14 Comments](#)

Welcome to the FTC Tech-ade blog!

Posted on [Thursday 5 October 2006](#)

Hello and welcome to the Tech-ade blog! This blog represents a new effort on the part of the Federal Trade Commission to communicate with the public in anticipation of our public hearings, "[Protecting Consumers in the Next Tech-ade](#)," which will take place November 6-8 at The George Washington University Lisner Auditorium in Washington, D.C. The staff of the FTC's Bureau of Consumer Protection has organized the "Tech-ade" hearings to educate ourselves about likely changes that will affect the consumer marketplace over the next decade. We have asked over one hundred experts in the fields of technology, marketing, advertising, product development, finance, and related fields to speak at the hearings. The hearings are free, open to the public, and will be webcast.

I am a recent college graduate and a member of the FTC's Honors Paralegal Program in the Bureau of Consumer Protection and will be the main blogger leading up to and during the Tech-ade hearings. I will be posting interviews with experts who can help illuminate not only the changes anticipated over the next ten years in demographics,

business practices, and technology, but also the impact these changes will have on American consumers. From time to time, guest bloggers may also be featured.
[\(more...\)](#)

Filed under: Uncategorized

FTC Blogger @ 10:37 am

[2 Comments](#)

[« + newer posts](#)



PROTECTING CONSUMERS IN The Next Tech-ade

:Tech-ade Blog

[Anticipating the Tech-ade Hearings: User-generated Content and Social Networking](#) »
« [A Look Back at the 1995 Global Hearings](#)

The FTC's "Ask the Experts" Series Continues!

Posted on [Tuesday 24 October 2006](#)

Next week, Jonathan Zittrain will be answering questions about where the Internet is headed in the coming ten years. Zittrain is the Jack and Lillian R. Berkman Visiting Professor for Entrepreneurial Legal Studies at Harvard Law School, the Chair in Internet Governance and Regulation at Oxford University, and the director and co-founder of the Berkman Center for Internet & Society. He has researched and written about the effectiveness of spam email and the use of Internet filtering, among other things. Professor Zittrain can help answer your questions on how the Internet is changing and will impart his knowledge of Internet regulation, digital property, privacy, and free speech issues.

To participate in this exciting online discussion, please submit your question(s) to the comments section underneath this entry or email them to techhearings@ftc.gov by **Friday, October 27**. Then check back here next week when Jonathan Zittrain's answers will be posted!

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Montana Bill

October 25, 2006 | [2:51 pm](#)

You've said that instead of using compromised computers to launch denial of service attacks or distribute viruses, hackers could choose to destroy the computers they take over. It hasn't happened (yet), but how likely do you think that this type of widespread destruction is?

Also, do you think it is even possible to secure code that exceeds some minimal level of complexity?

JCJ

October 26, 2006 | [11:47 am](#)

Without endangering the generative qualities of the internet, what could (or should) government do to regulate the internet in the name of consumer protection? Looking at the results of the Consumer Reports report Leap of Faith, I think it's safe to say that there is already consumer demand for increased stability and security in computing platforms. But at the same time, I think that it is important to maintain the Internet's generative qualities that have allowed so many people to lend their creativity — the very innovation that has made the internet so great. In your article, The Generative Internet, you write, "Cyberlaw's challenge ought to be to find ways of regulating — though not necessarily through direct state action — which code can and cannot be readily disseminated and run upon the generative grid of Internet and PCs, lest consumer sentiment and preexisting regulatory pressures prematurely and tragically terminate the grand experiment that is the Internet today." In speeches and articles, you have suggested that advances in software and operating systems might enable collective regulation. Your own involvement in a number of non-governmental projects, such as StopBadware and the OpenNet Initiative, demonstrates alternative forms of collective regulation. Should the state also play a role? If so, what do you think the government's role in the regulation of the internet should be?

Greg Piper

October 26, 2006 | 1:14 pm

Will traditional video regulations move to the Web - by legislative and/or judicial act - as more video moves online?

Sorry, the comment form is closed at this time.



FTC Tech-ade Blog Home is 2005 FTC Blogger. [Run](#) by Khaled Abou Alfa and Joshua. You can syndicate both the entries using [RSS](#) and the [Comments \(RSS\)](#) . [xhtml 1.0 trans](#) / [CSS](#) . Proudly powered by [WordPress](#).

The Future of the Internet

**In a survey, technology experts and scholars
evaluate where the network is headed in the
next ten years**

January 9, 2005

Susannah Fox, Associate Director

Janna Quitney Anderson, Elon University

Lee Rainie, Director

Summary of Findings

A broad-ranging survey of technology leaders, scholars, industry officials, and interested members of the public finds that most experts expect attacks on the network infrastructure in the coming decade. Some argue that serious assaults on the internet infrastructure will become a regular part of life.

In September 2004, the Pew Internet Project sent an email invitation to a list of respected technology experts and social analysts, asking them to complete a 24-question survey about the future of the internet. We also asked the initial group of experts to forward the invitation to colleagues and friends who might provide interesting perspectives. Some 1,286 people responded to the online survey between September 20 and November 1, 2004. About half are internet pioneers and were online before 1993. Roughly a third of the experts are affiliated with an academic institution and another third work for a company or consulting firm. The rest are divided between non-profit organizations, publications, and the government.

This survey finds there is a strong across-the-board consensus that the internet will become so important to users in the coming decade that the network itself will become an inviting target for attack. By a nearly 3-1 margin, the experts in this survey expressed worry about the vulnerability of the internet and the likelihood of an attack on the underlying infrastructure within the next ten years.

Some 66% agreed with the following prediction: At least one devastating attack will occur in the next 10 years on the networked information infrastructure or the country's power grid. As one expert wrote, "A simple scan of the growing number and growing sophistication of the viral critters already populating our networks is ample evidence of the capacity and motivation to disrupt." Eleven percent disagreed with the prediction and 7% challenged it, including some who argued that they did not expect any attack to be serious enough to involve loss of life or a very long outage.

The internet will be more deeply integrated in our physical environments and high-speed connections will proliferate – with mixed results.

There was little disagreement among experts that broadband adoption will grow and that broadband speeds will improve. Nor was there much doubt that vastly more people and objects would be linked online in the next decade. Experts envision benefits ranging from

This Pew Internet & American Life Project report is based on the findings of an online sample of 1,286 internet experts, recruited via email notices sent to an initial sample of pre-identified experts as well as a snowball sample of their colleagues in the period between September 20 and November 1, 2004. Since the data are based on a non-random sample, a margin of error cannot be computed, and the results are not projectable to any population other than those experts who completed the survey.

Pew Internet & American Life Project, 1615 L Street, NW, Suite 700, Washington, DC 20036
202-419-4500 <http://www.pewinternet.org>

Summary of Findings

the ease and convenience of accessing information to changed workplace arrangements and relationships. At the same time, a majority of experts agreed that the level of surveillance by governments and businesses will grow.

A full table of predictions and experts' reactions is on page vi of this report. Some of the highlights:

- 59% of these experts agreed with a prediction that more government and business surveillance will occur as computing devices proliferate and become embedded in appliances, cars, phones, and even clothes.
- 57% of them agreed that virtual classes will become more widespread in formal education and that students might at least occasionally be grouped with others who share their interests and skills, rather than by age.
- 56% of them agreed that as telecommuting and home-schooling expand, the boundary between work and leisure will diminish and family dynamics will change because of that.
- 50% of them believe that anonymous, free, music file-sharing on peer-to-peer networks will still be easy to perform a decade from now.

At the same time, there were notable disagreements among experts about whether internet use would foment a rise in religious and political extremist groups, whether internet use would usher in more participation in civic organizations, whether the widespread adoption of technology in the health system would ameliorate the most knotty problems in the system such as rising costs and medical errors, and whether internet use would help people expand their social networks.

Finally, the experts were relatively unconvinced about two suggested impacts of the internet related to democratic politics and processes:

- Just 32% of these experts agreed that people would use the internet to support their political biases and filter out information that disagrees with their views. Half the respondents disagreed with or disputed that prediction.
- Only 32% agreed with a prediction that online voting would be secure and widespread by 2014. Half of the respondents disagreed or disputed that idea.

In the emerging era of the blog, experts believe the internet will bring yet more dramatic change to the news and publishing worlds. They predict the least amount of change to religion.

Asked to rate the amount of change that is likely in a variety of institutions in the next decade, the internet experts predicted the most radical change in news and publishing organizations and the least amount of change in religious institutions. They also predicted large-scale change to educational institutions, workplaces, and health care institutions. They believe that families and communities will experience change, but not as much as other social arrangements.

Here are examples of experts' reflections:

- “Connections across media, entertainment, advertising, and commerce will become stronger with future margins going to a new breed of ‘digital media titans’ ... Well-branded innovators such as Google and Starbucks have a chance to build all-new new distribution models tied to ad revenue and retail sales.”
- “Health care is approximately 10 years behind other endeavors in being transformed, and will experience its boom in the next 10 years.”
- “Government will be forced to become increasingly transparent, accessible over the Net, and almost impenetrable if you're not on the Net.”
- “Digitization and the Internet make for a potent brew ... TiVo kills the commercial television format. Napster, Kazaa, and iPod kill the ‘album’ format. In the future, everyone will be famous for fifteen minutes in their own reality show.”
- “Hyperlinks subvert hierarchy. The Net will wear away institutions that have forgotten how to sound human and how to engage in conversation”
- “The ‘always-on’ internet, combined with computers talking to computers, will be a more profound transformation of society than what we've seen so far.”
- “The next decade should see the development of a more thoughtful internet. We've had the blood rush to the head, we've had the hangover from that blood rush; this next decade is the rethink.”
- “The dissemination of information will increasingly become the dissemination of drivel. As more and more ‘data’ is posted on the internet, there will be increasingly less ‘information.’”

(A full table of their assessment of institutional change is on page v of this report.)

Experts are both in awe and in frustration about the state of the internet. They celebrate search technology, peer-to-peer networks, and blogs; they bemoan institutions that have been slow to change.

We asked the experts to tell us what dimensions of online life in the past decade have caught them by surprise. Similarly, we asked about the changes they thought would occur in the last decade, but have not really materialized. Their narrative answers could be summarized this way:

- *Pleasant surprises:* These experts are in awe of the development of the Web and the explosion of information sources on top of the basic internet backbone. They also said they were amazed at the improvements in online search technology, the spread of peer-to-peer networks, and the rise of blogs.
- *Unpleasant surprises:* The experts are startled that educational institutions have changed so little, despite widespread expectation a decade ago that schools would be quick to embrace change. They are unhappy that gaps exist in internet access for many groups – those with low income, those with lower levels of educational

attainment, and those in rural areas. And they still think there is a long way to go before political institutions will benefit from the internet.

These survey results and written commentary from experts add to a growing database of predictions and analysis from trendsetters about the impact of the internet.

At the invitation of the Pew Internet & American Life Project, Elon University assistant professor Janna Quitney Anderson formed a research class in the spring semester of 2003 to search for comments and predictions about the internet during the time when the World Wide Web and browsers emerged, between 1990 and 1995. The idea was to replicate the fascinating work of Ithiel de Sola Pool in his 1983 book *Forecasting the Telephone: A Retrospective Technology Assessment*. Elon students looked in government documents, technology newsletters, conference proceedings, trade newsletters and the business press. Eventually, more than 1,000 people were logged in the predictions database and more than 4,000 predictions were amassed. The fruits of that work are available at: <http://www.elon.edu/predictions/> and they are also the basis for a forthcoming book by Anderson called *Imagining the Internet*.

The material from this survey is being added to the database. We hope the database will provide a resource for researchers and students to assess the evolution of the internet. Further, we invite readers of this report to enter their own predictions at that site.

The Future of the Internet: Summary of Findings at a Glance
A broad-ranging survey of technology leaders, scholars, industry officials, and interested members of the public finds that most experts expect attacks on the network infrastructure in the coming decade. Some argue that serious assaults on the internet infrastructure will become a regular part of life.
The internet will be more deeply integrated in our physical environments and high-speed connections will proliferate – with mixed results.
In the emerging era of the blog, experts believe the internet will bring yet more dramatic change to the news and publishing worlds. They predict the least amount of change to religion.
Experts are both in awe and in frustration about the state of the internet. They celebrate search technology, peer-to-peer networks, and blogs; they bemoan institutions that have been slow to change.
These survey results and written commentary from experts add to a growing database of predictions and analysis from trendsetters about the impact of the internet.
Source: Fox, Susannah, Janna Quitney Anderson, and Lee Rainie. <i>The Future of the Internet</i> . Washington, DC: Pew Internet & American Life Project, January 9, 2005.

Summary of Findings

Levels of change that internet use will bring in the next decade												
Respondents were asked the following: On a scale of 1-10 with 1 representing no change and 10 representing radical change, please indicate how much change you think the internet will bring to the following institutions or activities in the next decade. The results are represented as the percentage of experts and interested members of the public who predicted change that each point on the scale...												
	1	2	3	4	5	6	7	8	9	10	DID NOT RESP	MEAN
1 News organizations and publishing	*	*	1%	1%	3%	5%	12%	20%	23%	33%	2%	8.46
2 Education	*	*	1	3	5	8	16	21	19	24	2	7.98
3 Workplaces	*	*	1	2	7	9	18	22	18	20	2	7.84
4 Medicine and health care	*	1	3	4	7	10	15	20	17	20	2	7.63
5 Politics and government	*	1	3	5	7	11	19	22	14	16	2	7.39
6 Music, literature, drama, film and the arts	*	2	4	7	10	10	15	19	14	16	2	7.18
7 International relations	1	3	7	5	13	12	17	17	9	13	2	6.74
8 Military	1	3	7	7	14	11	16	15	10	12	4	6.53
9 Families	*	3	8	9	17	15	16	16	7	7	2	6.24
10 Neighborhoods and communities	1	5	7	9	17	14	19	14	6	7	2	6.16
11 Religion	5	14	16	11	16	11	11	7	2	3	3	4.69
<i>Source: Pew Internet & American Life Project, Experts survey, Sept. 20-Nov. 1, 2004. Results are based on a non-random sample of 1,286 internet users recruited via email. Since the data are based on a non-random sample, a margin of error cannot be computed.</i>												

How respondents assessed predictions about the impact of the internet in the next decade				
	Agree	Disagree	Challenged the prediction	Did not respond
Network infrastructure: At least one devastating attack will occur in the next 10 years on the networked information infrastructure or the country's power grid.	66%	11%	7%	16%
Embedded networks: As computing devices become embedded in everything from clothes to appliances to cars to phones, these networked devices will allow greater surveillance by governments and businesses. By 2014, there will be increasing numbers of arrests based on this kind of surveillance by democratic governments as well as by authoritarian regimes.	59%	15%	8%	17%
Formal education: Enabled by information technologies, the pace of learning in the next decade will increasingly be set by student choices. In ten years, most students will spend at least part of their "school days" in virtual classes, grouped online with others who share their interests, mastery, and skills.	57%	18%	9%	17%
Families: By 2014, as telework and home-schooling expand, the boundaries between work and leisure will diminish significantly. This will sharply alter everyday family dynamics.	56%	17%	9%	18%
Creativity: Pervasive high-speed information networks will usher in an age of creativity in which people use the internet to collaborate with others and take advantage of digital libraries to make more music, art, and literature. A large body of independently-produced creative works will be freely circulated online and will command widespread attention from the public.	54%	18%	9%	20%
Personal entertainment: By 2014, all media, including audio, video, print, and voice, will stream in and out of the home or office via the internet. Computers that coordinate and control video games, audio, and video will become the centerpiece of the living room and will link to networked devices around the household, replacing the television's central place in the home.	53%	18%	10%	19%
Internet connections: By 2014, 90% of all Americans will go online from home via high-speed networks that are dramatically faster than today's high-speed networks.	52%	20%	8%	20%
Digital products: In 2014, it will still be the case that the vast majority of internet users will easily be able to copy and distribute digital products freely through anonymous peer-to-peer networks.	50%	23%	10%	17%
Extreme communities: Groups of zealots in politics, in religion, and in groups advocating violence will solidify, and their numbers will increase by 2014 as tight personal networks flourish online.	48%	22%	11%	19%
Civic engagement: Civic involvement will increase substantially in the next 10 years, thanks to ever-growing use of the internet. That would include membership in groups of all kinds, including professional, social, sports, political and religious organizations – and perhaps even bowling leagues.	42%	29%	13%	17%
Health system change: In 10 years, the increasing use of online medical resources will yield substantial improvement in many of the pervasive problems now facing healthcare—including rising healthcare costs, poor customer service, the high prevalence of medical mistakes, malpractice concerns, and lack of access to medical care for many Americans.	39%	30%	11%	19%
Social networks: By 2014 use of the internet will increase the size of people's social networks far beyond what has traditionally been the case. This will enhance trust in society, as people have a wider range of sources from which to discover and verify information about job opportunities, personal services, common interests, and products.	39%	20%	27%	15%
Politics: By 2014, most people will use the internet in a way that filters out information that challenges their viewpoints on political and social issues. This will further polarize political discourse and make it difficult or impossible to develop meaningful consensus on public problems.	32%	37%	13%	18%
Democratic processes: By 2014, network security concerns will be solved and more than half of American votes will be cast online, resulting in increased voter turnout.	32%	35%	15%	18%

Source: Pew Internet & American Life Project Experts Survey, Sept. 20-Nov. 1, 2004. Results are based on a non-random sample of 1,286 internet users recruited via email. Since the data are based on a non-random sample, a margin of error cannot be computed.

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Methodology

Acknowledgements

Pew Internet & American Life Project: The Pew Internet Project is a nonprofit, non-partisan think tank that explores the impact of the Internet on children, families, communities, the work place, schools, health care and civic/political life. The Project aims to be an authoritative source for timely information on the Internet's growth and societal impact. Support for the project is provided by The Pew Charitable Trusts. The Project is an initiative of the Pew Research Center. The project's Web site: www.pewinternet.org

Princeton Survey Research Associates: PSRA conducted the survey that is covered in this report. It is an independent research company specializing in social and policy work. The firm designs, conducts, and analyzes surveys worldwide. Its expertise also includes qualitative research and content analysis. With offices in Princeton, New Jersey, and Washington, D.C., PSRA serves the needs of clients around the nation and the world. The firm can be reached at 911 Commons Way, Princeton, NJ 08540, by telephone at 609-924-9204, by fax at 609-924-7499, or by email at ResearchNJ@PSRA.com

Elon University School of Communications: Elon University has teamed with the Pew Internet Project to complete a number of research studies, including the building of the [Predictions Database](#) and an ethnographic study of a small town, “[One Neighborhood, One Week on the Internet](#)”, both under the direction of Janna Quitney Anderson. For contact regarding the Predictions Database send email to predictions@elon.edu. The university's Web site is: <http://www.elon.edu/>.

Why Predictions Matter

Imagining the internet

Janna Quitney Anderson has written a book, *Imagining the Internet*, from the material in the Elon-Pew Internet Project predictions material focused on the 1990-1995 period. It will be published in July 2005 by Rowman & Littlefield. The following excerpt explores the value of predicting the future:

Previous world-altering communications technologies including the printing press (1453), radio (1896), and television (1927) caused commentators, researchers, entrepreneurs, and politicians of those times to predict what might come to pass due to changes wrought by such new devices. Their aim in making predictive statements was to prepare their world - to brace it for inevitable economic, political, and social adjustments. As Ithiel De Sola Pool, an esteemed researcher of the 20th century, so aptly put it, "These technologies caused revised conceptions of man's place in the universe."

Although he died in the mid-1980s, Pool's work was influential in the decade that followed, when vital decisions were being made regarding freedom on the internet. Policymakers and researchers were inspired by his "Technologies of Freedom." Pool projected that interconnected computers would build a free-wheeling, wide-open communications structure ("the largest machine that man has ever constructed - the global telecommunications network; the full map of it no one knows; it changes every day") that would be questioned by regulators fearing the challenge to the economic and political status quo. He warned that a positive future would be delayed if regulators chose to interfere.

The prophets who seek to foresee the consequences of a new technology often do so in the hope of making a profit. Many others are motivated by the idea that better social choices can be made if the coming impact of a new tool can be accurately pre-assessed. An observance of what stakeholders and skeptics are saying at the dawn of a new communications age is vital in the formation of policy and thoughtful planning.

Part 1.

Introduction

In mid-2001, Lee Rainie, the Director of the Pew Internet & American Life Project, approached officials at Elon University with an idea that the Project and the University might replicate the fascinating work of Ithiel de Sola Pool in his 1983 book *Forecasting the Telephone: A Retrospective Technology Assessment*. Pool and his students had looked at primary official documents, technology community publications, speeches given by government and business leaders, and marketing literature at the turn of the 20th Century to examine the kind of impacts experts thought the telephone would have on Americans' social and economic lives. The idea was to apply Pool's research method to the internet, particularly focused on the period between 1990 and 1995 when the World Wide Web and Web browsers evolved.

Eventually, Janna Quitney Anderson, a professor of journalism and communication at Elon, formed a research class for the spring semester of 2003. The class searched for comments and predictions from 400 experts for the period between 1990-1995 in government documents, technology newsletters, conference proceedings, trade newsletters and the business press. Eventually, more than 1,000 people were logged in the predictions data base and more than 4,000 predictions were amassed. The fruits of that work are available at: <http://www.elon.edu/predictions>. We hope the database will provide a resource for researchers and students to assess the evolution of the internet. Further, we invite readers of this report to enter their own predictions at that site.

This retrospective research effort inspired the survey that is covered in this report. As more and more commentary was examined from the dawn of the Web, it became apparent that it would be useful to return to many of those experts to see what they currently see on the horizon. In September 2004, the Pew Internet Project sent an email invitation to a list of technology experts and social analysts, asking them to complete a 24-question survey about the future of the internet. We also asked the initial group of experts to forward the invitation to colleagues and friends who might provide interesting perspectives. Some 1,286 people responded to the online survey between September 20 and November 1, 2004. About half are internet pioneers and were online before 1993. Roughly a third of the experts are affiliated with an academic institution and another third work for a company or consulting firm. The rest are divided between non-profit organizations, publications, and the government.

Some internet luminaries were involved with the survey, including Vint Cerf, Esther Dyson, Bob Metcalfe, Dan Gillmor, Simson Garfinkel, Howard Rheingold, and David Weinberger. Other experts who responded to the survey shared only their institutional

affiliation, the list of which includes: Harvard, MIT, Yale; Federal Communications Commission, Social Security Administration, U.S. Department of State; IBM, AOL, Microsoft, Intel, Google, Oracle, and Disney, among many others. But some of the best comments came from those who declined to dazzle us with anything besides their ideas. These respondents opted not to identify themselves in any way.

The Pew Internet & American Life Project and Elon University do not advocate policy outcomes related to the internet. The predictions included in the survey were written to inspire reactions, not because we think any of them will necessarily come to fruition. We chose topics that have come up in our research as well as some ideas that have recently been in the news.

Some of the predictions were constructed in a way that contained several statements and it was often the case that experts would agree with one part of the prediction, but not the other. For instance, one assertion they were asked to analyze was: “By 2014 use of the internet will increase the size of people’s social networks far beyond what has traditionally been the case. This will enhance trust in society.” Many of the experts supported the first idea in the prediction (the size of personal social networks will grow), but challenged the notion that this would increase the overall level of trust that people had about one another.

In addition to trying to pack several ideas into one prediction, we tried to balance the statements so that there were roughly equal numbers of predictions with “good,” “bad,” and “neutral” outcomes. Many of the experts were quick to point out that the deployment of technology always brings *both* positive and negative results. Thus, they often reminded us in their written answers that the “good” outcome embodied in the prediction would not be the entire result of the technology change.

After each portion of the survey – each prediction or each question – we invited experts to write narrative responses to the item they had just assessed. We also gave them the option of challenging the predictions we offered, in case they did not agree with the thrust of the prediction or wanted to criticize the wording we had used. Not surprisingly, the most interesting product of the survey is the many open-ended predictions and analyses written by the experts in response to our material and we have included many of them in this report. Many others are now entered into the Elon-Pew Internet predictions database available at: <http://www.elon.edu/predictions>.

Since the experts’ answers evolved in both tone and content as they went through the questionnaire, the findings in this report are presented in the same order as the original survey. The experts were invited to sign their written responses if they wanted to be quoted in the Elon-Pew database and in this report. The quotations in the report are attributed to those who assented to have their words quoted. When a quote is not attributed to someone, it is because that person chose not to sign his or her written answer.

Part 2.

Institutions

After giving us some personal information in the survey such as their institutional affiliations, the experts were asked the following question, “On a scale of 1-10 with 1 representing no change and 10 representing radical change, please indicate how much change you think the internet will bring to the following institutions or activities in the next decade.” News organizations and publishing were the most popular choice for radical change; religion was seen as the least likely to change because of the internet.

Experts were then asked to write responses to this statement: “In the next decade, which institutions and human endeavors will change the most because of the internet? Tell us how you see the future unfolding or point us to your favorite recent statement about the impact of the internet in the future.”

An extended rundown of the written answers to this question can be found at: <http://www.elon.edu/predictions/q7.aspx>.

News organizations and publishing

Mean score: 8.46 on a 10-point scale (1=no change; 10=radical change)

It is safe to say that many of the experts here have direct connections to news organizations (if only as consumers) and publishing enterprises. Thus, it is not surprising to find that many were speaking from personal experiences as they assessed the evolution of the media environment.

One expert wrote, “The most obvious effects on news media are the rise of weblogs supplanting the public's attentions to traditional news media, and the slow death of newspapers due to erosion of mindshare by online influences such as news Web sites, chat rooms, message boards and online gaming.”

James Brancheau, a vice president at GartnerG2 who analyzes the media industry, wrote, “Connections across media, entertainment, advertising, and commerce will become stronger with future margins going to a new breed of ‘digital media titans.’ These companies may not come from the traditional value chain, they will be far more aggressive than existing players. The incumbents are not moving fast enough. Well-branded innovators such as Google and Starbucks have a chance to build all-new new distribution models tied to ad revenue and retail sales.”

Education

Mean score: 7.98 on a 10-point scale (1=no change; 10=radical change)

One expert wrote, “The impact on education will be substantial. For the pre-18s, distant learning and self-paced learning will raise standards and increase diversity. For the post-18s, lifelong learning delivered through CBT [competency-based training] will address skills shortages and have knock-on effects in addressing social issues.”

Workplaces

Mean score: 7.84 on a 10-point scale (1=no change; 10=radical change)

One expert wrote, “I believe that the next large impact of the internet will be in the area of work and organizations. We still work in an industrial era mode of communications. While there will always be a need for physical presence and proximity, advanced ICT [information and communications technology] will create a newer form of decentralized organization that will continue to change the nature of work.”

Medicine and health care

Mean score: 7.63 on a 10-point scale (1=no change; 10=radical change)

Daniel Z. Sands, a primary care internist, assistant professor of medicine at Harvard Medical School and chief medical officer of ZixCorp, wrote: “The internet is changing healthcare in many ways: It changes the way clinicians communicate with one another, including consultation specialties. It transforms the way patients and providers access and share information. It lowers barriers of the paper world, making it possible to patients to see their records online and be more involved in their health care. It offers additional channels through which care can be delivered to patients. Because of this, it will force new models of licensing health care professionals, to permit us to deliver care at a distance. It will also force us to change the way clinicians are remunerated, to include non-visit based care. The internet will increasingly change patients' expectations of the clinicians, so that physicians will routinely need to offer services like e-messaging, instant messaging, video conferencing and other online services.”

Charles M. Firestone, executive director of the Aspen Institute, wrote, “I think public health has the potential to change the most with the widespread dissemination of public health information via the internet (and eventually to the mass media), the earlier detection of the spread of communicable diseases, and the ability to treat people remotely – all increasing significantly in the next decade.”

Ted Eytan, medical director of the Web site for Group Health Cooperative, wrote, “Health care is approximately 10 years behind other endeavors in being transformed, and will experience its boom in the next 10 years. Consumers can now clearly see the differentiation between what they can get online from their health care organization (little to nothing) and from other institutions, and will demand parity. This will serve to overcome current financial barriers to provide e-health services. We will move from patient-physician e-mail to complete medical record transparency, and ultimately a true sharing of the health care experience and the accountability for the diagnosis and therapy between physician and patient. A recent statement of mine is ‘2003 was the year of the secure message, 2004 is the year of the online lab result.’”

Politics and government

Mean score: 7.39 on a 10-point scale (1=no change; 10=radical change)

One expert wrote, “Government will be forced to become increasingly transparent, accessible over the Net, and almost impenetrable if you're not on the Net.”

Music, literature, drama, film and the arts

Mean score: 7.18 on a 10-point scale (1=no change; 10=radical change)

One expert wrote, “Digitization and the Internet make for a potent brew. Look for continued disruptive change from the new reality of digital photography, digital music, digital video, digital ‘film’-making, digital television, digital news, digital books, etc. TiVo kills the commercial television format. Napster, Kazaa, and iPod kill the ‘album’ format. In the future, everyone will be famous for fifteen minutes in their own reality show.”

Another wrote, “The area that will change the most will be arts and entertainment. The ability to receive real-time music and video over the internet, or downloaded content, will radically transform business models for TV and movies as it is already doing for music. It also will continue to change the relation of the public to artists as it has through fan sites, remixes, and other internet-based phenomena.”

International relations

Mean score: 6.74 on a 10-point scale (1=no change; 10=radical change)

One expert wrote, “The internet increases options and possibilities. It connects people to each other and increasingly things to each other. The world will get a nervous system, and that is a big deal.”

Another wrote, “After spending 3 months in rural South East Asia this year I think the most interesting developments that will come from the internet will be from the developing nations. We will see this in every category from virus writing, to online gaming, to offshore tech support and coding. I think the internet will become increasingly less English language centric.”

Military

Mean score: 6.53 on a 10-point scale (1=no change; 10=radical change)

One expert wrote, “The military will obviously continue to develop internet related technologies, mostly those of surveillance (except they may call them homeland security or privacy protection).”

Families

Mean score: 6.24 on a 10-point scale (1=no change; 10=radical change)

Michael Botein, director of the Communications Media Center at New York Law School, wrote, “Families, friends, and colleagues hang together much more through the Internet than through the lost art of written correspondence or voice – as seen by the fact that my adult children answer emails immediately and phone messages in a week (if at all).”

Another expert wrote, “The context for family interactions has already changed dramatically. The ease with which children and grandparents can communicate; the ability to message instantly will change the nature of our interfamily relations – and thereby change the dynamics of our personal lives.”

Neighborhoods and communities

Mean score: 6.16 on a 10-point scale (1=no change; 10=radical change)

Barry Wellman, head of Netlab at the Centre for Urban and Community Studies and the Department of Sociology at the University of Toronto, wrote, “A move towards

networked individualism and away from groups – in work, community and even the family.”

Mike Kelly, president of AOL Media Networks, wrote, “As broadband proliferates the access to information, services and applications by households and institutions with relationships to households (schools, communities, governments, marketers) will deliver on the promise of the internet as a personal productivity tool as well as a communications/information resource.”

Religion

Mean score: 4.69 on a 10-point scale (1=no change; 10=radical change)

Jordi Barrat i Esteve, of the Electronic Voting Observatory at Universitat Rovira i Virgili, wrote, “The institutions strongly based on information exchange, like international politics, education, arts or media, will change the most because the internet is directly linked with the information management. On the other hand, religion is above all a personal field and the internet is here a tool with less influence.”

None of the above, all of the above

There were quite a few experts whose comments could not be sorted into a specific category.

Peter M. Shane, professor of law at Ohio State University and the editor of Democracy Online, wrote, “The most radical changes will likely involve the workplace, because of the economic incentives involved, and processes of artistic creation, because the internet is such a fabulous new medium of creation and distribution. I hope for real, but more modest gains in the contribution of the internet to our democratic life.”

“Hyperlinks subvert hierarchy. The Net will wear away institutions that have forgotten how to sound human and how to engage in conversation.”

– David Weinberger, a fellow at Harvard's Berkman Institute for Internet & Society and blogger extraordinaire

Gary Chapman, director of the 21st Century Project at the Lyndon B. Johnson School of Public Affairs at the University of Texas at Austin, wrote, “Nearly everything will change because of the internet, and especially as the internet becomes ubiquitous and all-pervasive, different from the discrete experience it is now on a computer. The ‘always-on’ internet, combined with computers talking to computers, will be a more profound transformation of society than what we've seen so far.”

Part 2. Institutions

Douglas Rushkoff, an author and professor at the New York University Interactive Telecommunications Program, wrote, “The biggest changes, as always with new media, will be metaphorical. It's not that anything in particular that we do on the internet is so important – it's that behaviors we have online can serve as models for behaviors that change in real life.”

Bob Metcalfe, inventor of ethernet and founder of 3Com, wrote, “Governments will tend toward democracy. Transportation will be refined through massive substitution of communication. The current flight to cities will be reversed. The Internet won't be in schools, it will replace schools. Television channels will be replaced by video blogs and Dan Rather will be dragged off the set.”¹

Peter Denning, a computer science pioneer, wrote, “Greater use of open development processes for technology, as in the World Wide Web Consortium or the Internet Engineering Task Force. Greater separation of people from direct social interaction, leading to decreasing skill in social interaction and more social and organizational problems. Greater offloading of work tasks from organizations to their customers (e.g., do-it-yourself Web sites) with less and less human help or customer service available.”

Bill Eager, an internet marketing pioneer, wrote, “We already know that the internet ‘connects’ the world. We have been largely wired. Now we are at the point where applications will mushroom for individuals and organizations. In particular individuals will have 24/7 access to communications, education and information with the proliferation of a new generation of small, portable, wireless access tools. Full integration of voice recognition will make the internet both accessible to a larger audience and considerably more human friendly.”

“Anything that has involved an intermediary will be changed. New kinds of intermediaries will emerge, but the old ones – especially in businesses that have created high margins by being in the middle of transactions – will find their very existences at risk.”

– Dan Gillmor, longtime technology journalist

Rose Vines, a technology journalist, wrote, “The next decade should see the development of a more thoughtful internet. We've had the blood rush to the head, we've had the hangover from that blood rush; this next decade is the rethink. Because of that, we'll start to see developments which reflect real human needs: For connection, for privacy, for security, for a sense of belonging. We'll probably also see more attempts at control of the internet, both by business and governments around the world.”

¹ This was written before Dan Rather announced his intended departure date from CBS News.

Bill Warren, vice president of Public Affairs & Community Relations at Walt Disney World Company, wrote, “My window on the internet is most clear as I watch my children effortlessly roam around the world via the Web. It has already taken them farther than I – as a parent – will ever be able to take them. It's making the world a smaller place, and forever expanding my children's horizons. For that, I am both amazed and grateful.”

Gary Arlen, a communications and media consultant, wrote, “Global communications and the ability to find and identify ideas. Education will be greatly affected, although this depends on financial/funding and policy decisions. Entertainment will continue to drive access, with new forms of digital interactive games and content arising thanks to the capability of the Internet's connectivity and graphics power. Videophony (video phones) for a variety of business and social uses will be an add-on to the coming VoIP onslaught.”

Challenges to the question

We invited experts to challenge the premise of the questions being asked of them. One example of an interesting challenge to this question about the institutional impact of the internet was this: “Although I have tried to adapt my thinking to this questionnaire and to indicate how much I think each sector will employ the internet, ‘how much change you think the internet will bring’ does not describe the way that the internet or society works. The internet does not ‘bring’ change. The internet is shaped and developed by these sectors; it is not exogenous to them!”

Philip Virgo, secretary general of the European Information Society Group, wrote, “It will take several years for the players to get their acts together and re-engineer mass-market access products and services for reliable and safe use by ordinary human beings. It will then take several more years to overcome the growing backlash. Radical change will therefore only begin to happen towards the end of the decade. It need not be that way but the current state of denial is that it looks as though it may. P.S. One of my uncles had a mobile office in the early 1950s (World War 2 army surplus wireless equipment) and I was using non-internet e-mail (IP Sharp time-sharing service) in 1977. The pace of change to date has been greatly exaggerated.”

Negative impacts

A few experts went against the grain and predicted that the world would not necessarily be better off because of the internet.

One expert wrote, “The dissemination of information will increasingly become the dissemination of drivel. As more and more ‘data’ is posted on the internet, there will be increasingly less ‘information’...This will affect everything from politics, to science/pseudoscience, to education. The only vestige of hope may be in the

Part 2. Institutions

development of integrity, whether mandated by law, developed by private labels, or in the most unlikely of scenarios, the nascence of personal integrity.”

Another wrote, “The internet won’t change most institutions and human endeavors too much, because it’s increasingly a cesspool of spam, porn, phishing, and other distracting and annoying commodities, discouraging more intensive and productive use.” A third expert wrote, “The largest impact will be negative: terrorist groups will figure out how to use (and disable) the internet, with grim consequences.” Finally, one respondent wrote, “The digital divide will further divide the haves from the have-nots. Even as stationary terminals are being made available in public places, so are the main uses of the internet moving to high bandwidth portable devices.”

Part 3.

Social networks

Prediction: By 2014 use of the internet will increase the size of people's social networks far beyond what has traditionally been the case. This will enhance trust in society, as people have a wider range of sources from which to discover and verify information about job opportunities, personal services, common interests, and products.

Experts' reactions	
Agree	39%
Disagree	20
Challenge	27
Did not respond	15

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at: <http://www.elon.edu/predictions/q8.aspx>

A majority of those who responded to this question have serious doubts whether people can really handle larger social networks, whether those networks will be meaningful even if they do expand, and even about the virtues of expanded networks.

Early in the history of the internet, the first big mailing list on science fiction was created and users' online conversations turned from shared research to shared interests. Any sense of idyll was quickly broken, however, by the first off-topic and unsolicited messages, later dubbed "spam."² Perhaps this pattern of connection and intrusion inspired the mixed reactions to this prediction about the power of online social networks – very few experts agreed with this statement without qualifications. Many respondents agreed with the first sentence of the prediction, but thought the second sentence "did not follow," was "too general a claim," or even was "a horrible generalization" that focused on the tech elite in the United States.

² According to "Short History of the Internet by Bruce Sterling" available at: <http://w3.aces.uiuc.edu/AIM/scale/nethistory.html>

Part 3. Social networks

Problems with online security and privacy were mentioned quite often as a deterrent to increased trust in society inspired by the internet. One expert wrote, “I agree that social networks will be larger, but I do not believe that trust will be increased, because the internet will also bring spam, phishing, worms, and rumor mongering which will mitigate against increased trust.”

A few experts observed that expanded online networks of trusted commercial contacts have benefited many people, but social networks may not reap the same benefits. One wrote, “Although we have begun to overcome some of the trust issues concerning transactions on the internet, we are not there yet relative to social interactions. That will take more time. The internet has not replaced the handshake.” Another wrote, “Trusting the seller in eBay creates a particular bond in a particular context, but won't necessarily extend to other areas of trust - particularly between institutions and individuals.”

Many were skeptical about the value of an expanded social network. One expert wrote that the internet “may increase the number of casual acquaintances, but not deep attachments.” Ben Compaine, a consultant for the MIT Program on Internet and Telecoms Convergence, wrote, “People will have a wider range of sources – but most individuals will settle on a small number that they will use repeatedly – much as they use a small subset of the large number of TV networks available already. Impact on trust could go either way (or both) – more sources could equal more differences of info could lead to more confusion and skepticism as easily as more trust.”

“You’ll get more information, but much of it will be contradictory.”

– Jonathan Band, an attorney specializing in e-commerce and intellectual property with Morrison and Foerster LLP in Washington

One expert tried to place this in a larger context by writing, “Like any other mass aggregation of people, peddlers of wares and services, hucksters of all descriptions, and general riff raff will make these larger social networks somewhat less than useful. There will be (and are) benefits, however, for those who can tolerate the virtually milling masses. For example, the internet is great at aggregating individuals without regard to distance, for example those who are offering a good or service and those who wish to buy, or patients with rare diseases.”

Dan Froomkin, a columnist for washingtonpost.com and deputy editor of niemanwatchdog.org, wrote, “The key will be for the internet to embrace geography considerably more than it has thus far. More Friendsters, and less Freepers. More craigslist and less eBay. The internet could be a tool for people to connect with each other in their geographic communities, not withdraw from their geographic communities into a virtual space where the horizons are vastly narrower.”

Part 3. Social networks

Noshir Contractor, a researcher for the National Science Foundation and speech and communications professor at the University of Illinois-Urbana-Champaign, wrote, “It will increase the size of people's ‘latent’ social networks. They will have access to more of their direct and indirect contacts and greater ability to find out who knows who, who knows what, who knows who knows who, who knows who knows what.”

Part 4.

Network infrastructure

Prediction: At least one devastating attack will occur in the next 10 years on the networked information infrastructure or the country's power grid.

Experts' reactions	
Agree	66%
Disagree	11
Challenge	7
Did not respond	16

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at:
<http://www.elon.edu/predictions/q9.aspx>

As Americans have become more dependent on the internet, there has been a growing chorus of concerns about the vulnerability of the network to physical and internal attack. Denial of service attacks have plagued some Web sites. A growing number of computer viruses have spread around the network. A central part of the internet in Manhattan was near the Sept. 11, 2001, terror attacks on the World Trade Center. And Robert Gates, the director of the CIA in the 1990s, recently said that the internet is a prime target because terrorists may perceive it as a threat to their way of life.³

"A simple scan of the growing number and growing sophistication of the viral critters already populating our networks is ample evidence of the capacity and motivation to disrupt."

– Anonymous respondent

³ "Ex-CIA Chief Gates Warns on Cyberterror," (Associated Press, December 4, 2004). Available at:
http://www.sanangelostandardtimes.com/sast/home/article/0,1897,SAST_4943_3375717,00.html

Part 4. Network infrastructure

There was strong agreement among experts from every group in our survey that an infrastructure attack was increasingly likely. If there was anything resembling a consensus agreement in our survey this concern about threats to the internet was it.

Respondents who agreed with this prediction had several kinds of threats in mind. Some are worried about physical attacks on central parts of the internet infrastructure or cyber-terrorist exploitation of vulnerabilities in the systems of key utilities or key industries, such as banking. Others expressed concerns that the network of networks would remain vulnerable to ever-more-clever viruses, worms, Trojan horses and other packet-born techno-troubles.

At the same time, a number of experts questioned the word “devastating,” arguing, for example, that a network attack is not likely to be comparable to a disaster like a hurricane. Fred Hapgood, a professional science and technology writer, responded, “Not if ‘devastating’ means something like ‘no internet for 24 hours’. It’s way too decentralized for that.” Simson Garfinkel, an authority on computer security and columnist for Technology Review, wrote, “I’m not sure what you mean by ‘devastating.’ We see roughly one devastating attack every 6-12 months. Do you mean an attack with loss of life?” Another wrote, “If you mean very costly, yes. If you mean a failure that cascades to other segments of society, with widespread suffering or loss of life, then no.”

One self-declared optimist disagreed with the prediction and wrote, “Technology is not sitting still, and our defenses are continuously improving.” Another wrote, “Predictions like this reflect a willingness to accept a conspiracy theory of the world. I am too optimistic to agree.”

A few experts challenged the prediction. One wrote, “I believe it implies a static infrastructure that isn’t constantly being enhanced and expanded.” Another wrote bluntly, “Dumb prediction. There is likely to be a devastating attack on anything big.”

At least one expert saw a silver lining in the event of an attack, writing, “The question, though, is how we’ll weather it. Maybe it will just cause a holiday where we come, blinking, out into the sunlight for an afternoon.”

Part 5.

Digital products

Prediction: In 2014, it will still be the case that the vast majority of internet users will easily be able to copy and distribute digital products freely through anonymous peer-to-peer networks.

Experts' reactions	
Agree	50%
Disagree	23
Challenge	10
Did not respond	17

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at: <http://www.elon.edu/predictions/q10.aspx>

The Pew Internet & American Life Project reported in January 2004 that the percentage of online Americans downloading music files on the internet plunged after the Recording Industry Association of America began filing suits in September 2003 against those suspected of copyright infringement. The number of music downloaders has rebounded to some degree in the past year. In previous research, file swappers seemed indifferent to the copyright status of the music they were sharing and downloading. But the country has gotten a crash course on copyright in the past year and a lot of people who trade files online may believe now that indifference to copyright law is a much more risky attitude.

Internet experts were divided into four different camps when it came to the future of digital property rights: philosophers, pragmatists, hacker devotees, and skeptics. Again, while it might appear from the survey data that there is solid agreement among experts on this assertion, it is more appropriate to say that the expert community is very sharply divided and uncertain about the future of shared digital products.

The philosophers felt that society will change to accommodate the new realities of file sharing. Stanley Chodorow, a historian and university administrator, wrote that, "Over time – longer perhaps than the 10 years asked about in the survey – people will begin to

Part 5. Digital products

see the internet as part of society and not as a wild territory beyond civilization where anything goes. As that change of view occurs, people will begin to obey rules that will reduce substantially the theft that goes on now.” Ted Eytan, medical director of the Web site for Group Health Cooperative, agreed, citing historical precedent: “Like the sheet music industry in the early 1900's, a new generation of users will grow up in an area of digital rights management and a new norm of not sharing copyrighted material.” A third expert envisioned a different future: “Millennials [children currently in elementary and secondary school] will be so computer/network savvy and so inter-dependent with one another that they will, without hesitation or conscience, share everything.”

Some experts focused on the commercial aspects of the prediction. Bob Metcalfe, inventor of ethernet and founder of 3Com, wrote, “We must and therefore will fix this problem. Private property is too valuable an economic tool.” Another expert agreed, but rather more bitterly wrote, “We're headed towards digital prohibition. The bastards are going to win.”

Faith in technology and the ingenuity of computer programmers inspired a few experts. One wrote, “I agree because to think otherwise would mean that a draconian clampdown on the legitimate uses of the internet would have taken place. The internet is designed to allow computers to communicate directly with one another.”

“Many of the folks running the internet and its infrastructure are deeply committed to preserving this capability.”

– Anonymous respondent

A few experts foresee a two-level system. One wrote, “One will be the commercial internet where information is paid for. The other is the open source internet that is more artistic and chaotic in a positive way. We will come to associate the commercial internet with ‘credible’ and the open source internet with ‘you never know what’y’a gonna get’ though these perceptions will not necessarily align with the actual status.”

Challengers questioned the assumptions behind the prediction. Robert Lunn, a senior analyst for the USC Annenberg School’s Center for the Digital Future, confronted its parochialism: “I doubt China's internet users are going to have that type of ‘Digital Freedom,’ and there are a lot of people in China.” Michael Wollowski, a computer scientist at the Rose-Hulman Institute of Technology, wrote, “I want to suggest that ‘freely’ would not imply ‘illegally’ in 2014.”

“[Peer-to-peer networks will] exist, but they'll be hard to use and most people won't bother.”

– Anonymous respondent

Part 5. Digital products

A few experts challenged the notion that a “vast majority” of internet users have the skills to participate in peer-to-peer networks. Eszter Hargittai, a Northwestern University professor researching the social and policy implications of information technologies, wrote, “This is not even true in 2004. Use of anon p2p networks is not as easy and as second-nature to the average user as one may think. Once we study online skills in more detail we will realize that the average user knows less than academics/journalists tend to assume.”

Part 6.

Civic engagement

Prediction: Civic involvement will increase substantially in the next 10 years, thanks to ever-growing use of the internet. That would include membership in groups of all kinds, including professional, social, sports, political and religious organizations – and perhaps even bowling leagues.

Experts' reactions	
Agree	42%
Disagree	29
Challenge	13
Did not respond	17

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at: <http://www.elon.edu/predictions/q11.aspx>

In his book, *Bowling Alone: The Collapse and Revival of American Community*, political scientist Robert Putnam argued that one major reason for the decline in civic engagement in the United States is the reluctance among younger people to participate in community groups (bowling leagues, for example). Other social scientists express concern that internet use may prompt people to withdraw from social engagement and abandon contact with their local communities. The Pew Internet Project, however, has documented a vibrant online world where many Americans use email and the Web to intensify their connection to their local community and far-flung groups of people who share their interests.

The debate over whether the internet is helpful or harmful to civic involvement will continue for many years, judging from the reactions to this prediction. The same percentage of experts disagreed or challenged this statement as agreed with it – and even those who agreed with it often had questions about what it means.

For example, Mark Rovner, an online fundraising expert with the Carol/Trevelyan Strategy Group, wrote, “Maybe. But the memberships may be loose and ephemeral,

Part 6. Civic engagement

coming together around an issue or a need at one moment, then dissolving and reforming elsewhere the next. Case in point – the Dean campaign.”

Many experts scoffed at the notion that a network of computers could increase civic participation. One wrote, “The internet is a tool, not a replacement for life. The same predictions were made about radio and television when first introduced and those latter day prophets have been forgotten, as have the historical memory of their similar predictions.” Another wrote, “The network enables greater civic involvement, but does not spawn it: a desire for change does.”

“People do not obey Moore's Law.”⁴

– Anonymous respondent

Ken Jarboe, of the Athena Alliance, a Washington-DC think tank focusing on the social and economic implications of the internet, summed up many experts’ opinions about how the internet will not alleviate the time crunch: “The internet will give people a greater ability to participate – but our limited amount of time (and limited interest) will continue to be barriers to further participation. There are still only 24 hours in the day – and many, many other demands on our time.”

Other challenges to the prediction cautioned against exaggerating the internet’s impact. One expert wrote, “Ha! So much of online group ‘involvement’ is passive. Look at things like listservs. Such a small proportion of members do anything. That is not involvement. Will we be members of more groups? Sure, but that is not social involvement.” Peter Levine, deputy director of the Center for Information and Research on Civic Learning and Engagement at the University of Maryland, wrote, “Membership in disciplined, rule-based organizations will probably continue to fall. Membership in face-to-face organizations may also weaken. Counting mailing lists as ‘associations’ can be a mistake.”

“Even when some activity belongs to just 1 in a million persons, it means there are 6,000 of those people in the world. The internet allows those 6,000 people to find one another more quickly and easily.”

– Anonymous respondent

However, there are some experts who foresee a rosier outcome. Rose Vines, a technology journalist, wrote, “Involvement won't necessarily increase in numbers, but it will in depth and richness of experience. As more groups discover ways to use the internet to connect, disseminate and influence, a new element will be added to group interaction. We'll also see those traditionally excluded from participation, including the physically disabled and

⁴ In 1965, Gordon E. Moore, co-founder of Intel, accurately predicted that the capacity of computer chips would double every two years. See <http://www.intel.com/research/silicon/mooreslaw.htm>

Part 6. Civic engagement

elderly, being brought on board.” Tobey Dichter, founder of Generations on Line, went even further, writing, “This is one of the most effective uses of the internet – building community. Exciting global connections will do more for international understanding and intergenerational respect than any tool since the printing press.”

Part 7.

Embedded networks

Prediction: As computing devices become embedded in everything from clothes to appliances to cars to phones, these networked devices will allow greater surveillance by governments and businesses. By 2014, there will be increasing numbers of arrests based on this kind of surveillance by democratic governments as well as by authoritarian regimes.

Experts' reactions	
Agree	59%
Disagree	15
Challenge	8
Did not respond	17

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at: <http://www.elon.edu/predictions/q12.aspx>

There was hardly any disagreement with the assumption underlying this question: that more devices, appliances, and other objects would be tied to the information infrastructure. Proponents of automatic identification devices say convenience is one of the best outcomes of embedded technologies such as electronic toll collection, mass transit fare cards, and building access key cards. Our prediction took a different tack, eliciting fear, defiance, and hope that it might be prevented from most of the respondents.

One expert seemed to welcome the surveillance, writing, "In response to terrorism, such surveillance is necessary and predictable. Its expansion to address criminal activities is also obvious. In many cases, such as tagging pedophiles, it will bring security to the innocent and anti-social behavior can be controlled. In democracies, why worry?"

Another expert would counter that such "social surveillance" is potentially more harmful than law enforcement: "It goes far beyond arresting people. This will be a method of social control in more subtle ways, too. The risk of being seen as 'different' will grow,

and children will grow up with the knowledge that their every move is being watched. This is a recipe for killing the kind of independent thinking that creates innovation, vibrant political debate and a free society in general.”

Susan Crawford, a law professor and policy fellow with the Center for Democracy & Technology, foresees a different consequence: “It seems to me that most of this surveillance will be private in nature, and that private firms will be unwilling to make their databases widely available. I agree there will be lots of surveillance, but I don't see it being turned over to government authorities. Instead, it will be used to market to us in ever-more-personalized ways.”

But, as in the peer-to-peer debate, there is a group of experts who believe in the power of technology to elude the would-be watchers. One wrote, “The innovators of these tools have consistently been ahead of government efforts to counter their influence. This will continue to be so, and citizens will continue to ‘get away with’ activities using technology that government does not understand.”

Experts challenged the wording of the prediction, pointing out that it was impossible to measure. One wrote, “Since the earth's population grows every year, ‘increasing numbers of arrests’ are inevitable. That more powerful devices will offer greater surveillance also is a given. The question is whether government will spy on us proportionately more than they do now, which, by the way, we can't measure because it's done secretly.”

Some experts believe the prediction will come true in less than 10 years. One pointed out, “Right now, almost no one knows what RFID means. In five years, everyone will.” (RFID stands for “radio frequency identification.” RFID tags can be as small as an adhesive sticker and can be used to automatically identify people or objects by transmitting a unique serial number.)⁵

The final word goes to the expert who anonymously wrote, “I would elaborate but someone might be watching.”

⁵ For more information on RFID, see <http://en.wikipedia.org/wiki/RFID>

Part 8.

Formal education

Prediction: Enabled by information technologies, the pace of learning in the next decade will increasingly be set by student choices. In ten years, most students will spend at least part of their “school days” in virtual classes, grouped online with others who share their interests, mastery, and skills.

Experts' reactions	
Agree	57%
Disagree	18
Challenge	9
Did not respond	17

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at: <http://www.elon.edu/predictions/q13.aspx>

There has been an aggressive national campaign to bring computers and the internet into schools – nearly all American public schools have some kind of internet access for students. However, schools with the highest concentrations of poverty are the least likely to have internet access – and access is only part of the story. Internet-savvy students are remarkably different from their non-wired peers when it comes to tackling homework, communicating with their classmates and teachers, and engaging with the outside world.

Experts cautioned that each new technology – motion pictures, radio, television, and now the internet – rekindles the hope that it will transform education for the better. Indeed, few experts agreed wholeheartedly with the prediction. The following response sums up that type of reaction: “This will transform learning as we know it. Alas, we may escape the strangulation of the agricultural calendar.” More typical was the expert who wrote, “I agree this will happen, but only in the wealthier school districts and private schools. The numerous school systems that can't afford enough computers or adequate internet access will fall farther and farther behind.”

Part 8. Formal education

Many of the respondents who have had experience with teaching online said only highly motivated, mature students exhibit the ability to be successful in a learning environment in which so much responsibility is placed upon a student. Moira K. Gunn, host of public broadcasting's Tech Nation, wrote, "I do not now, and have never, witnessed successful benefits in virtual classrooms. While the role of the teacher will change from authority figure with all the information to one-on-one educational coach, the one-teacher-one-student paradigm will remain the most effective." Indeed, children in elementary school "still need a watchful eye and human attention," according to one expert.

"Some students will do this, students in affluent circumstances and enlightened schools. But 'most' students are not so lucky."

– Anonymous respondent

Older students – those in college, graduate school, or of non-traditional school ages – will benefit the most according to many experts, but "establishment" institutions will be the hardest to convince. Gary Bachula, a technology development leader, most recently at Internet2, wrote, "Schools and colleges are enormously resistant to this kind of change – more so than I would have predicted ten years ago. As a result, traditional methods of learning will slowly start to compete with the 'upstarts,' first, the 'proprietary colleges.' Then, one or more of the older institutions will get aggressive in this arena – and then an avalanche will occur." Another wrote, "Harvard and other major universities are not likely to go virtual. In fact, being on campus will become a thing of status. Online learning and virtual learning will allow more individuals to go to college, but it will take decades if not centuries for online learning to gain the same status as classroom learning. I see enhanced classrooms and dorm rooms ... but not a radical change in how learning occurs."

"If people are taught to hang out only with those of like interests, mastery, and skills, they will become less tolerant of diversity. More medieval."

– Peter Denning, a computer science pioneer

Part 9.

Democratic processes

Prediction: By 2014, network security concerns will be solved and more than half of American votes will be cast online, resulting in increased voter turnout.

Experts' reactions	
Agree	32%
Disagree	35
Challenge	15
Did not respond	18

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at:
<http://www.elon.edu/predictions/q14.aspx>

It is safe to interpret these results as a clear challenge to the hope that online voting will become normalized anytime soon. The experts who disagreed or challenged this prediction articulated diverse concerns, often citing their professional expertise. Few of those who agreed with the prediction shared justifications beyond hopeful bromides like, "The sooner the better."

Many experts sought to crush the optimistic view that network security concerns could ever be "solved." One expert wrote, "It is foolhardy to underestimate the fragility and vulnerability of any online system to attack and manipulation. Anything that can be made secure can be hacked."

"As long as one human being designs it, another will be able to break or hack it. This is one truism we can never lose sight of."

– Anonymous respondent

Part 9. Democratic processes

Many experts were frustrated that the prediction mixed too many elements. One expert wrote, “Many parts to this prediction. Security concerns are unlikely to be solved and so people will not want to vote online. Even if they could, though, I do not see this resulting in increased turnout. Also, what about the digital divide? It is not going away in the next 10 years. That will suppress online turnout in many sectors of society.”

The ritual of the voting booth attracted some experts. Douglas Rushkoff, an author and professor at the New York University Interactive Telecommunications Program, wrote, “I think people will begin to devalue voting if they don't go do it somewhere. So increased access may lead to decreased participation.”

“Here’s my revision: By 2014, network security concerns will still be with us, more than half of American votes will be cast online anyway, and this will have no effect on the rates of voter participation.”

– Anonymous respondent

J. Scott Marcus, a senior adviser for internet technology at the Federal Communications Commission, wrote, “‘Solved’ may be overoptimistic, but at least ameliorated to the point where deployment is realistic. Increase turnout, yes. And also possibly facilitating more advanced forms of voting, if states/municipalities are willing to try them. (But the U.S. has been resistant to systems such as proportional representation – it's TOO democratic. ;^)”

One expert wrote, “And, if so, America will have ceased to be a democracy. The problem is not merely ‘network security’ or even equipment security, but that without a secret ballot, monitored by representatives of the candidates and/or independent observers, there is no reliable way of preventing coercion (even if there were ways of preventing impersonation). Voting is a social, not a mechanistic, activity.”

One expert looked beyond voting: “I am contaminated by the current norms of two party political behavior. I see nothing but continued estrangement from national/conventional politics. But, at the same time, I believe virtual communities of interest will exercise episodic political power ... like a swarm of angry bees!”

Part 10.

Families

Prediction: By 2014, as telework and home-schooling expand, the boundaries between work and leisure will diminish significantly. This will sharply alter everyday family dynamics.

Experts' reactions	
Agree	56%
Disagree	17
Challenge	9
Did not respond	18

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at:
<http://www.elon.edu/predictions/q15.aspx>

Home broadband users and teenagers may represent leading indicators for what the future holds for the intersections of work, school, and home life. For example, internet users who have added a fast connection at home say they are more likely to telecommute. A home broadband connection also appears to make it easier for family members to share access to the computer and the internet.⁶ High school students see the internet as a virtual textbook and reference library, a virtual tutor and study shortcut, a place to conduct virtual study groups, a virtual locker, backpack and notebook, and as a virtual guidance counselor when they are deciding about careers and colleges.⁷

Since most of the respondents to this survey are elite “knowledge workers”⁸ with fast connections to the internet at home and at work, many shared personal stories about what a difference the internet has made in their own working lives.

⁶ See “The Broadband Difference” (Pew Internet & American Life Project: June 23, 2002). Available at: http://www.pewinternet.org/PPF/r/63/report_display.asp

⁷ See “The Digital Disconnect” (Pew Internet & American Life Project, August 14, 2002). Available at: http://www.pewinternet.org/PPF/r/67/report_display.asp

⁸ The phrase “knowledge worker” has been credited to Peter Drucker, who spoke on this topic in 1994: http://www.ksg.harvard.edu/ifactory/ksgpress/www/ksg_news/transcripts/drucklec.htm

Part 10. Families

One person wrote, “The increase in connectivity between mobile devices will result in a new family dynamic that will re-expand the notion of family to include not only geographically displaced extended family relatives but also unrelated family members. Around the clock connection and automatic sharing of contact information beyond the immediate family members will foster digital tribes and a stronger sense of ‘family.’”

Another expert wrote, “This prediction assumes that the boundary between work and leisure is a natural thing. On the contrary, it’s a new way of organizing. Moving back towards more integration will happen and is a good thing.”

“The Web is dramatically changing the way women in my generation are able to mother and work. The Web is providing the tool that women needed to contribute at home and in the world.”

– Tiffany Shlain, founder of the Webby Awards

Many respondents who offered up their personal experiences as proof were outshined by skeptics who, while in the minority, wrote convincing arguments to the contrary. One expert wrote, “I think it is naive to view the technology in isolation; family dynamics; economic and social considerations will trump this prediction – ten years is too fast to expect such change. Perhaps in two decades, but this extrapolation does not seem consistent with America’s past tech influences on lives.”

Another person wrote, “The potential exists, but the time saved by not commuting isn’t likely to be use to increase the work day. There is no evidence that kids living in dorms or boarding schools can’t separate class time from play time – even if they’re living within 100 yards of the classroom.”

“Whoever suggested that home-schooling would increase because of the internet has never stayed at home with a child. The Venn Diagram of telework and home-schooling shows two circles entirely without connection.”

– Moira K. Gunn, host of public broadcasting’s Tech Nation

Two respondents expressed doubt that all workers would benefit from telework options. One wrote, “I also remember when video conferencing was supposed to end the need for business travel. Sometimes there’s no substitute for being there.” Another pointed out that “nobody is going to make cappuccinos in Starbucks from home.”

Part 11.

Extreme communities

Prediction: Groups of zealots in politics, in religion, and in groups advocating violence will solidify, and their numbers will increase by 2014 as tight personal networks flourish online.

Experts' reactions	
Agree	48%
Disagree	22
Challenge	11
Did not respond	19

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at: <http://www.elon.edu/predictions/q16.aspx>

Many respondents pointed out that the internet is like a pen, a microphone, or a telephone – all are wielded by good guys and bad guys. There is nothing inherent in the technology that gives advantage to one side or the others. Thus, many agreed that zealot groups will have an easier time sustaining themselves. By the same token, the experts are confident that all manner of helpful groups will have an equally easy time.

One expert wrote, “The internet is a medium not a motivator. It is possible however that the relative anonymity of the internet will allow people to voice notions that would not be tolerated in polite ‘arms-reach’ society, thus more vitriol could be expressed without fear of social opprobrium normally expected when meeting with others face to face. In this sense the internet is like graffiti, only it can be targeted to the right niche.”

A few experts criticized the sweeping nature of the prediction. For example, one expert wrote, “So far we have little empirical evidence to show that online communication has such adverse effects. (That is, it would be hard to show that the internet has had an isolated influence on bigoted actions among people who wouldn't have otherwise gone down that path anyway.) The jury is still out on how much the Net fragments people into little communities of people who completely agree with them.” Fred Hapgood, a

Part 11. Extreme communities

professional science and technology writer, had an even more pointed assessment: “These questions are very poorly formulated. Do you mean will the number of zealots increase or just the number of groups? I think the answer is no to the first and yes to the second.”

Another critic of the question gave it a more positive spin: “This is an interesting prediction. I tend to agree with it because the internet, having broken boundaries of geography and linear time, enables niche groups to reach a 'critical mass' much more quickly and conveniently than in previous generations. But of course the zealots are not limited to religion and politics – they also include the quilters and the Star Wars fans and the peaceniks. The internet itself is agnostic, and so should be your question.”

Susan Crawford, a law professor and policy fellow with the Center for Democracy & Technology, agreed, writing, “Although I think guilds will form, I’m not convinced that bad-guy guilds will be any more prevalent than good-guy guilds. People are generally nice to each other. Sure, like-minded people will find each other, but I don’t think that’s reason to adopt the negative language of this prediction. Yes, more groups will form. But this is a very diverse world, and there will be all kinds of groups.”

“Yes, but not only groups of zealots advocating violence. Also groups of ‘zealots’ advocating peace and non-violent activism.”

- Noshir Contractor, a researcher for the
National Science Foundation

A small group of respondents suggested that the internet’s positive force will outweigh any negative inclinations among its users. Robert Lunn, a senior analyst for the USC Annenberg School’s Center for the Digital Future, wrote, “I believe that personal networks will allow some undesirable groups to enhance communications among themselves and perhaps to even broaden their recruitment efforts. However, I also believe that enhanced communications and access to information is on the evolutionary path to freedom.”

Part 12.

Politics

Prediction: By 2014, most people will use the internet in a way that filters out information that challenges their viewpoints on political and social issues. This will further polarize political discourse and make it difficult or impossible to develop meaningful consensus on public problems.

Experts' reactions	
Agree	32%
Disagree	37
Challenge	13
Did not respond	18

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at: <http://www.elon.edu/predictions/q17.aspx>

An October 2004 report from the Pew Internet & American Life Project shows that even as political deliberation seems increasingly partisan and people may be tempted to ignore arguments at odds with their views, internet users are not insulating themselves in information echo chambers.⁹

"There will always be people who want to be challenged by opposing points of view, and as long as those points of view can still publish, the internet will make it more possible to access them with ease."

- Noshir Contractor, a researcher for the National Science Foundation

Most experts disagreed with the prediction or challenged its premise, arguing that there are many other forces at work in political discourse. For example, Jorge Reina Schement,

⁹ See "The internet and democratic debate" (Pew Internet & American Life Project, October 27, 2004). Available at: http://www.pewinternet.org/PPF/r/141/report_display.asp

director of the Institute for Information Policy at Penn State University, wrote, “It is not the internet that drives polarization of the electorate. Rather, polarization stems from the inability to find common ground when values differ. Polarization in American society will continue; the internet will serve to abet this tendency.”

Another expert cited historical precedent, writing, “Most people use new media so they know what is important, what has happened and what may happen. The partisan press isn't new – this nation was born out of a partisan press. And it certainly has been the norm in other parts of the world for many, many years. The bigger concern is the concentration of ownership by large corporations.” A third expert seemed to agree, writing, “There will always be people who want to be challenged by opposing points of view, and as long as those points of view can still publish, the internet will make it more possible to access them with ease.”

B. Keith Fulton, vice president for strategic alliances at Verizon Communications, wrote, “The 'Net should have the opposite affect on 'most people.' Sure, crazy folk will find crazy folk. But the masses will use the 'Net for their first news and will go to trusted sites for affirmation and/or information that they seek. The level of political discourse should rise in proportion to the penetration of the 'Net and the availability of trusted sources.”

One expert grew tired of the predictions' format and spoke for many when he wrote, “It's very difficult to know how to answer these questions, since they are usually of the form, first A will happen and that will cause B, which will cause C. Suppose I think A and B will happen, but not C?? This question is just one example among many. Besides, what is 'meaningful consensus'? Did we ever have a 'meaningful consensus at any point during the 19th century, when there was no internet to speak of?”

Part 13.

Health system change

Prediction: In 10 years, the increasing use of online medical resources will yield substantial improvement in many of the pervasive problems now facing health care—including rising health care costs, poor customer service, the high prevalence of medical mistakes, malpractice concerns, and lack of access to medical care for many Americans.

Experts' reactions	
Agree	39%
Disagree	30
Challenge	11
Did not respond	19

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at:
<http://www.elon.edu/predictions/q18.aspx>

A December 2002 Pew Internet & American Life Project survey showed that 80% of internet users, or about 102 million Americans, have searched online for at least one of 16 major health topics.¹⁰ An educated consumer stands a better chance of getting good treatment and the internet can be a significant resource for that health education process. An increase in the use of internet health resources is not a cure-all, however. For example, low health literacy limits many Americans' ability to understand the information available online.

Many experts pointed out that the internet's strengths (information, communication) will have little effect on the U.S. health system's weaknesses (inequality of access to care, among others). Those who agreed with the prediction, however, were enthusiastic about the potential benefits of electronic medical records, remote monitoring of patients, and peer support.

¹⁰ See "Internet Health Resources" (Pew Internet & American Life Project, July 16, 2004). Available at: http://www.pewinternet.org/PPF/r/95/report_display.asp

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Pamela Whitten, an associate professor at Michigan State University and a senior research fellow for Michigan State's Institute of Healthcare Studies, wrote, "External barriers (such as legal/regulatory/reimbursement/organizational) still trump many efficiencies offered by the internet."

One respondent wrote, "In fact, I think the increasing use of online resources will actually exacerbate most of these problems in the short term of the next decade, since medicine is still on the steep side of the adoption and learning curve in IT and use of the internet in particular. The costs of the IT investment required by HIPAA¹¹ alone will add measurably to health insurance premiums, today and for at least the next five years. Part of the problem is that, even though IT and online improvements in these areas are likely to be beneficial to the very great majority of consumers, the potential cost of nagging problems or spectacular single failures is devastatingly high."

"Online technology will only codify current health policy that fragments care and underserves a significant minority of the American population. Real reform, including finance reform, is needed, which will result in cost-reduction, facilitated by online access."

- Ted Eytan, medical director of the Web site for Group Health Cooperative

One expert wrote, "The rise in automation and self serve options (such as we see in self checkout lanes at supermarkets) is training our society not to rely on service from other human beings. My sense is that it is likely that patients will increasingly use the internet to act as their own doctor, coming to their physician with not only complaints but 'solutions,' the quality of which will be suspect."

Another wrote, "Both the rising health care costs and its result, the lack of access to medical care, are the results of health becoming a source of profit for investors who already have money. Nothing inherent in the Web fixes that. Ditto for poor customer service. There is a potential gain in the widening of access to medical specialties for those who have the money – digital records, easy transmittal of test results and MRIs for second opinions or consultations, etc. – but the increasing corporate seizure of what had traditionally been a private, in-person matter between physician and patient also brings with it denial of benefits, and thus of services, that act as a counterweight to those benefits for far too many Americans, and world citizens."

On a more optimistic note, one expert who works in health care wrote, "We are already finding the internet useful as a cheap way to distribute life-saving or promoting information and services to far-flung areas. Believe that there may be some (not a lot) of

¹¹ From [Wikipedia](#), the free encyclopedia: "Health Insurance Portability and Accountability Act of 1996 (HIPAA) is a set of rules to be followed by health plans, doctors, hospitals and other health care providers. One key provision requires health plans and providers to use standard formats for electronic data interchange, such as electronic claims submission."

Part 13. Health system change

savings that can be put into other programs.” Gary Kreps, a professor at George Mason University and formerly the Chief of the Health Communication and Informatics Research Branch at the National Cancer Institute, wrote, “With increased access to relevant health information, better decisions will be made by health care consumers and providers.”

Many respondents wrote that they both agreed and disagreed with the statements (one complained that an “unreasonable connection” between two predictive statements was growing tiresome). For example, one expert wrote, “It will be very helpful, but not for the reasons listed above. The main advantage will be for peer support and information sharing.”

Part 14.

Personal entertainment

Prediction: By 2014, all media, including audio, video, print, and voice, will stream in and out of the home or office via the internet. Computers that coordinate and control video games, audio, and video will become the centerpiece of the living room and will link to networked devices around the household, replacing the television's central place in the home.

Experts' reactions	
Agree	53%
Disagree	18
Challenge	10
Did not respond	19

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at: <http://www.elon.edu/predictions/q19.aspx>

Many experts believe that a media convergence is imminent, but most of those who agreed with the premise of the prediction added caveats and elaborations. A number of experts protested that all these media toys will be available, but only to an elite group.

One expert represented the most optimistic observers, writing, "The internet is becoming 'data electricity' and increasingly is the conduit by which information and entertainment enters the home and is enjoyed and shared with others inside and outside the home. This will probably happen before '14." Gary Bachula, a technology development leader, most recently at Internet2, also thought ten years was too long a timeline, unless the "digital rights management cops" put an end to the fun. He wrote, "Eventually, every thing digitized in the world (movies, music, books, newspapers, etc.) will be available from the network through peer-to-peer like networks. The net will become a giant TiVo, and will have every song, every movie, every TV show (from some point on), every sports game, every news broadcast, ever created. People will obtain it over the net – and send it within

Part 14. Personal entertainment

their homes wirelessly to devices that are hybrids of what we call computers and televisions today.”

James Brancheau, a vice president at GartnerG2 analyzing the media industry, wrote, “Media access won’t be exclusively through the internet; it will include many types of IP networks including private (e.g. cable, satellite) and public networks (e.g. datacasting, fixed wireless). TV will lose time share to the media PC and media appliances, but it will remain central to mainstream households. The tipping point away from TV will be further down the road, perhaps closer to 2020 when our 24-year olds turn 40.” Another expert echoed these ideas, writing, “I agree with the streaming and beaming of all media, but I do not agree that it will center on the new ‘hearth’ of the home. I believe media will be small, personalized, and wearable. We might connect to a display system periodically, but it is more likely to be impromptu small gatherings – decentralized use throughout the home.”

One detractor wrote, “Totally inconsistent with prior experience. Changes will be substantial but they will not affect all homes and new media or delivery ways will not replace old ones.”

“Functionality will be there, but full adoption will not.”

- Anonymous respondent

Tobey Dichter, founder of Generations on Line, also challenged the prediction, writing, “As with some of the other predictions, this presupposes an affluence that is not reality. Such broad-based connectivity requires costly subscriptions, tech know-how, housing flexibility and an interest in leisure activities beyond television – which are beyond the capacity for a vast number of Americans.” And B. Keith Fulton, vice president for strategic alliances at Verizon Communications, pointed out, “After a hard day’s work, most of us want to sit and watch or listen to our devices, not interact with them.”

Part 15.

Creativity

Prediction: Pervasive high-speed information networks will usher in an age of creativity in which people use the internet to collaborate with others and take advantage of digital libraries to make more music, art, and literature. A large body of independently-produced creative works will be freely circulated online and will command widespread attention from the public.

Experts' reactions	
Agree	54%
Disagree	18
Challenge	9
Did not respond	20

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at:
<http://www.elon.edu/predictions/q20.aspx>

According to a December 2004 report by the Pew Internet & American Life Project, artists and musicians have embraced the internet as a tool to improve how they make, market, and sell their creative works. They use the internet to gain inspiration, build community with fans and fellow artists, and pursue new commercial activity.¹²

"Predictions of a new age of creativity driven by the internet are no more likely to come to pass than similar predictions made in the early years of television."

- Jorge Reina Schement, director of the
Institute for Information Policy at Penn State
University

¹² See "Artists, Musicians, and the Internet" (Pew Internet & American Life Project, December 5, 2004).
Available at: http://www.pewinternet.org/PPF/r/142/report_display.asp

Part 15. Creativity

Despite the upbeat feelings of artists themselves, many experts begged to disagree about the prospect for a flowering of creativity. The idea that independently-produced creative works will command widespread attention was almost universally derided as “utopian,” “pie-in-the-sky,” or simply “hype.” One respondent wrote, “Music, art, and literature. Yeah right. The only thing broadband will bring to the public is uncensored reality schlock shows and porn.” Another expert wrote, “Humanity has had books for hundreds of years, but does not have universal literacy. Creativity may bloom but that does not mean it will be seen or appreciated by all.”

One respondent wrote, “The internet overcomes the simple problem of disseminating information, but it vastly increases the problem of overcoming information clutter and overload. Marketing and publicity remain critical, whether provided by today’s record labels, by a completely altruistic co-op of like-minded artists, or anything in between.”

However, there were observers who believe that an “age of creativity” is possible. For example, one wrote, “Modern art was largely spurred by a reaction to photography. Artists adapt to new media, and will adapt to the internet.”

Part 16.

Internet connections

Prediction: By 2014, 90% of all Americans will go online from home via high-speed networks that are dramatically faster than today's high-speed networks.

Experts' reactions	
Agree	52%
Disagree	20
Challenge	8
Did not respond	20

Since results are based on a non-random sample a margin of error cannot be computed.

Note: An extended rundown of the written answers to this question can be found at: <http://www.elon.edu/predictions/q21.aspx>

According to the February 2004 survey of the Pew Internet & American Life Project, 34% of all adult Americans have access to broadband either at home or in the workplace. Much of the growth in broadband adoption at home is attributable to users' unhappiness with the dial-up doldrums – that is, people growing frustrated with their slow dial-up connections. Price of service plays a relatively minor role in the home high-speed adoption decision.¹³

Although slightly more than half of experts agreed with this prediction, few were specific in their responses about why they think high-speed access will roll out to most homes by 2014. Many seemed to aspire to these heights of connection, citing more hopes than facts. As one expert wrote, “Yes, but 90% isn't good enough. We must do away with the digital divide entirely if we are to become a truly advanced culture.”

More typical was the expert who wrote, “Whoa. First you have to get 90% online. I don't think that is possible given current trends. I do believe broadband will be widely used,

¹³ See “Broadband Penetration on the Upswing” (Pew Internet & American Life Project, April 19, 2004). Available at: http://www.pewinternet.org/PPF/r/121/report_display.asp

Part 16. Internet connections

however. Still, will it be faster than today? Only if we can come up with novel ways to make that pay for itself.” Another wrote, “It will take longer to reach 90% unless this becomes a public-works project like the Interstate highways.” A third agreed, writing, “Only if the government subsidizes the great divide between the haves and the have-nots with respect to computers, computer training, and the cost of access.”

Part 17.

Looking back, looking forward

Where has the internet fallen short of expectations?

Since so many of the experts we contacted were early adopters of the internet, we asked them to think back to their views a decade ago and assess where the use or impact of the internet has fallen short of expectations. Many experts are disappointed that spam and viruses have proliferated without check. The digital divide vexes quite a few experts. Many observe that education, health care, and civic life have not adopted the internet as quickly as they had hoped. Others wish that download speeds were even faster and are looking forward to a “video internet.” And a number of experts said the internet is just about as they had imagined it would be.

Here are some examples of the experts’ thoughts on this question and a fuller rundown of written responses can be found at <http://www.elon.edu/predictions/q22.aspx> and at <http://www.elon.edu/predictions/q23.aspx>.

- “1. Education – I thought distance learning would be more widespread. 2. Elections – I thought we would get to online voting sooner. 3. E-commerce – I thought that online commerce would have a more devastating impact on local commerce and local taxation.” – Charles M. Firestone, executive director of the Aspen Institute
- “I did not expect that porn and objectionable content would have as large an impact as it has had on so many.” – Anonymous respondent
- “Politics still sucks. America's getting more totalitarian even as the populace is dancing in the streets to downloaded music” – Anonymous respondent
- “As with radio, most of the hoped-for educational impact of the Internet didn't materialize.” – Simson L. Garfinkel, an authority on computer security and columnist for Technology Review
- “We forgot to build the Internet with enough security and economics.” – Anonymous respondent
- “As I feared, bland content from large media companies dominates too much. There is great creativity from a wide range of sources, and it does get noticed and it does have an impact. But the balance is not where I would like it to be.” – Anonymous respondent

Part 17. Looking back, looking forward

- “It has exceeded my expectations for certain demographic segments of the world's population. As expected, most people in the world are unaffected by the advent of the Internet.” – Anonymous respondent

Many respondents had been very generous with their time and some were clearly growing tired of typing full sentences: “Enhanced democracy: NOT. Enriched sense of community: NOT. Public space for learning: a mix but mostly commercial.”

What impacts have been felt more quickly than expected?

Experts wrote with evident delight about the explosion of e-commerce, smart searches, mobile communication, and peer-to-peer file sharing. Others shared their disappointment that spam, identity theft, and other online pests have moved so quickly toward dominance. For example:

- “The astounding array of information available on the Internet is much larger than anyone could have ever expected.” – Anonymous respondent
- “The rise of the Web is astonishing. In 1992 (I have slides from a talk that year) we were not sure that the Web would win out over competitors such as WAIS, archie or gopher. The transformation of the telephone industry has gone faster than I thought.” – Anonymous respondent
- “E-mail was expected. The Web took us completely by surprise.” – Anonymous respondent
- “I don't subscribe to a newspaper anymore. I don't shop at retail stores nearly as often, or the bank. I don't buy reference books or go the library. I don't use the phone as much.” – Anonymous respondent
- “I would never have imagined blogs, or that I would have one of my own. On the other hand, I spend much more time doing fairly routine work (such as scheduling meetings) online. The nuisances, like spam, viruses, and comment spam, are worse than I would have predicted.” – Peter Levine, deputy director of the Center for Information and Research on Civic Learning and Engagement at the University of Maryland
- “The assumption, by the wired intelligentsia, that they can find out pretty much anything on Google.” – Dan Froomkin, a columnist for washingtonpost.com and deputy editor of niemanwatchdog.org

What's next?

We ended the survey with the most forward-looking question: “What are you anxious to see happen? What is your dream application, or where would you hope to see the most path-breaking developments in the next decade?” A fuller rundown of written responses can be found at: <http://www.elon.edu/predictions/q24.aspx>.

Part 17. Looking back, looking forward

Mike O'Brien, a computer scientist with the Aerospace Corporation, wrote, "Fully immersive 3D alternate reality, portable. A completely separate and completely virtual world, equally accessible wherever or whenever you are. It would give a mental "face" to the internet that would allow people to get a visceral handle on it. Right now, the average Joe's vision of the internet is like the blind men and the elephant – people think that what they see and use every day is the whole thing."

One expert wrote, "Artificial intelligences in appliances, vehicles, computer software. For example, I'd love a word processor that worked like a great copy editor – not simply a spell checker or simple grammar checker. Or a kitchen appliance that would read all the bar codes of items in my pantry and refrigerator and recommend innovative menus, remind about expiration dates and calculate nutritional values for meals. Perhaps it would even use avatars to walk through recipes. Or, if activated, I'd like such a device to answer a question like, 'Where are the kids right now?' If each child has a cell phone (or PDA-type device) my kitchen appliance would tell me that Mary is at her friend's house and that Tommy is in the park. It might ask if I want to send them a note reminding them to be home by 5:00 to get ready for dinner. These are the sorts of network applications that enhance but also transform."

Another expert wrote, "I most anxious to see the intellectual property laws admit that they are failing and restructure in a smarter way. I am most anxious for a seamless open source online computer. Meaning I buy something at an electronics store that when I plug it into the net updates itself completely and keeps itself up to date in terms of operating system, email and Web clients all with open source apps."

One respondent wrote, "Converged devices are a dream. I would love one phone/PDA that can get 2-4 lines, do e-mail (GPRS and real time), Wi-Fi, has Blue-tooth, IM, and video – and fits in my shirt pocket and does not cost more than \$300."

One respondent wrote, "I would like to have the data about me in a virtual passport that I control and that I can choose who is allowed to see what specific information I choose within that passport. I would like to have my home - the appliances, lights, vehicles wired and knowing me and my preferences. I am interested in how nano-technology is going to impact the products we buy today, the healthcare advances that we will be able to see and the new products that will be created through nano-techs application."

Lois Ambash, president of Metaforix.com, wrote, "My dream application is a fail-safe, user- controlled, user-friendly privacy screen that would allow people to reap all the benefits of cyberspace with none of the personal risks. What I am most anxious to see is genuine conversation between geeks and newbies. Many people who could reap great benefits from the internet are hampered by the jargon barrier (and other language barriers, such as reading level and lack of facility in English)... My dream situation – as opposed to application – will occur when beta testing routinely requires that any intelligent adult be

Part 17. Looking back, looking forward

able to use the product or application competently without a geek in the family or a lengthy interaction with tech support.”

Part 18.

Reflections

Conflicting desires can be seen in these expert opinions, mirroring basic concerns that were discussed at length in the predictions made by internet stakeholders in the early 1990s.

First is the conflict between the all-too-human desires for total security and complete privacy. Everyone wishes for both, but it is impossible to have both and make things work online. For instance, there is no way to have secure online voting without asking voters to reveal their identities as they vote, thus removing their anonymity. At the same time, there cannot be total privacy and anonymity online without allowing criminals and terrorists to operate in secret. If there is not a reasonable level of security, internet users cannot trust that companies on the internet will be able to handle the most personal kinds of transactions. Security does not have to be perfectly air-tight, argue some experts, but it has to be effective enough to allow people reasonable confidence in internet-derived information and transactions.

Second is the conflict between the yearning for access to all information everywhere and the desire to simplify life and avoid being inundated with information. Many of the same people who express a desire for total, instantaneous, easy-to-use access to all of the information on the planet also complain that the avalanche of information is growing worse all the time, complicating their lives, causing stress, and even changing the dynamics of work, family, and leisure time.

Finally, our experience in collecting the original material for the 1990-1995 predictions database and then going through the results of this survey remind us that some universal themes about the impact of technology and society are evident here. Respondents' comments reflected a number of the same concerns expressed about previous technologies throughout history, among them were:

- 1) Technological change is inevitable, and it will result in both beneficial and harmful outcomes. Those surveyed see the impact of the internet as multidirectional and complex, as did predictors at the dawn of all other communications technologies.
- 2) A technology is never totally isolated in its influence as a change agent. Many social trends commonly associated with the coming of the internet are the result of changes spurred by multiple forces; some already were in motion as the internet came into common use. We must not fall into the trap of technological determinism – the internet should not be fully credited nor should it take all of the blame.

Part 18. Reflections

3) Entrenched interests prefer the status quo and often work to block or delay innovations introduced by new technologies such as the internet. Respondents see this happening in copyright clashes, education, health care, and other areas.

4) The business of projecting the future impact of a technology can be difficult and full of inconsistencies. Respondents' answers display a conflict between their hopes for the internet's positive potential and their reality-based opinions of what can really be accomplished in the next 10 years. Many were skeptical about advances outside their areas of expertise and were enthusiastic about those in their areas of specialization. Opinions diverge on many issues.

It is appropriate to close this report with a quote from one expert who wrote, "I never would have expected that such a high percentage of people would be utterly dependent upon the internet for such a large proportion of their daily communication activities. If you took it away, we would be shell-shocked. But ten years ago, we didn't even have it!"

Methodology

This survey, sponsored by the Pew Internet & American Life Project and conducted by Princeton Survey Research Associates International, obtained online interviews with a non-random sample of 1,286 internet users. The interviews were conducted online, via SPSS, in two Waves: Wave 1 took place from September 20 to October 18, 2004, and Wave 2 took place from October 19 to November 1, 2004. Details on the design, execution and analysis of the survey are discussed below.

Sample design and contact procedures

Across both waves of the project, email invitations to participate in the survey were sent to just under 1,000 internet users, (367 of these were sent after the completion of the first Wave of the project). The initial list included as many members as possible from the “200 Internet Figures” identified in the Elon University/Pew Internet & American Life Predictions Database project (<http://www.elon.edu/predictions/200briefbios.aspx>). Overall, approximately seven percent of the email addresses proved invalid, for a working rate of 93%. The email invitations provided a direct link to the survey, and contained the following language:

Dear [name here]:

The Pew Internet & American Life Project is surveying experts about the future of the internet and we would very much like to include your views in our research.

The idea for this project grew out of work we did with Elon University to develop a database of over 4,000 predictions about the impact of the internet made by experts during the period between 1990 and 1995. Now we are conducting a web-based survey about the impact the internet might have in the next decade. We are canvassing many of the people whose predictions are included in the original 1990-1995 database—and we are soliciting predictions from other experts who have established themselves in recent years as thoughtful analysts.

We hope you'll take 10-15 minutes to fill out our survey, which you will find at <http://surveys.spss-sb.com/spssmr/survey/surveyentry.aspx?project=p3280003>. The survey asks you to assess several predictions about the future impact of the internet and to contribute your own thoughts about what will happen in the next 10 years.

This is a confidential survey. However, we encourage you to take credit for your thoughts. When you start the survey, please use this personal identification number (PIN): [PIN]

The Pew Internet & American Life Project will issue a report based on this survey during autumn; we hope the results will be useful to policy makers, scholars, and those in the information technology industry. Our goal is to include material from this new survey in the predictions database. (While we have not publicly talked about that effort yet, you can browse through the existing material at <http://www.elon.edu/predictions>.) Be assured that we will not use your name or email address for any purpose other than this research project, and will not share your information with outside solicitors.

We're sure we have not identified all experts whose views would be helpful to this research, so I would invite you to send an invitation to participate in this survey to any friends or colleagues whose insights you would be interested in learning. Please ask them to use PIN 700 when taking the survey.

I hope you enjoy taking the survey and sharing your views about the future of the internet. If you have any questions, please feel free to contact me at lrainie@pewinternet.org.

Thank you,

Lee Rainie, Director, Pew Internet & American Life Project

As the above text indicates, Pew Internet encouraged the initial sample of experts to forward the email invitation to any colleagues whose thoughts on the future of the internet they would consider useful and important. This created an additional snowball sample of internet experts, whose ideas are also included in the final data.

Completion rate

Based on figures supplied by SPSS, PSRAI has calculated the following completion rate for the Experts Survey:

TABLE 1: Overall Survey Completion Rate		
	<u>Number</u>	<u>Rate</u>
Total Hits	1,892	
Total Completes	1,286	68.0%
Final Completion Rate		68.0%

In Table 1, total hits (1,892) indicate the number of times the survey link was accessed between September 20 and November 1, or roughly the number of potential respondents who reached the survey's title page during the field period. The survey title page gave the following brief description of the survey and its sponsors, along with instructions for how to complete the survey:

Forecasting the internet

Welcome to the Pew Internet & American Life Project survey of technology experts and social analysts about the future of the internet. This survey asks you to assess some predictions and contribute your own thoughts about the impact of the internet in the next 10 years.

This survey has grown out of as yet unpublished research by the Project and Elon University to study predictions made between 1990 and 1995 about the evolution of the internet. The “Imagining the internet” database of those predictions is available at <http://www.elon.edu/predictions>. We plan to update the database to include responses from this survey as well as your unfiltered answers.

The project’s goal is to see where experts agree and disagree about the potential social impact of the internet. We hope the findings will illuminate issues for policy makers, spark debate and further research among scholars, and encourage those who build technology to ponder the societal effects of their creations.

This is a confidential survey. However, we encourage you to take credit for your thoughts. Please feel free to put your name in any space that allows for written answers. We will only credit to you the individual statements to which you add your name in the answer block. If your name is not there, your comments will be attributed to an anonymous voice when they are added to the Pew Predictions Database.

We plan to publish the results of this survey in a report that will be issued this autumn.

S1. If you received an email invitation from Pew Internet with an individual PIN for taking this survey, please enter it here.

Those who were invited to participate by a friend or colleague should use guest PIN 700. If you did not receive either an individual or guest PIN, please enter 999 and proceed.

Total completes (1,286) indicate the number of respondents who completed the survey through at least Question 6. The final completion rate for the survey is computed as the number of completes (1,286)/the number of hits (1,892), or 68.0%.

Questionnaire development

The questionnaire was developed by PSRAI in collaboration with staff of the Pew Internet & American Life Project and their partners at Elon University.

PROTECTING CONSUMERS IN The Next Tech-ade

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A Look Back at the 1995 Global Hearings

Posted on [Thursday 19 October 2006](#)

A decade ago, upon the initiative of then-Chairman Robert Pitofsky, the Federal Trade Commission brought together academics, consumer groups, and industry members in an effort to learn about increasingly rapid technological developments of the day and their potential impact on consumers. Called the Global Hearings, this week-long event was held in November 1995, the dawn of a period of rapid technological change. The discussions that took place at the Hearings introduced the FTC to the full potential of many technological breakthroughs and shaped the Bureau of Consumer Protection's agenda for years to come. To this day, many of the FTC's key players credit the event with helping the agency to modernize its understanding of consumer protection issues.

"We felt that we were really on the cutting edge," said Lydia Parnes, the Deputy Director of the Bureau at the time of the Global Hearings and the current Director of the Bureau of Consumer Protection. Back then, the role that the Internet would play for consumers was still uncertain. For this reason, it was helpful that, "[the Hearings could] reinforce that electronic commerce was potentially very beneficial to consumers," according to Jodie Bernstein, the Director of the Bureau of Consumer Protection during the Hearings and currently Of Counsel at the law firm of Bryan Cave.

The Hearings primarily focused on the television, the telephone, and the computer. The FTC summarized the conclusions about the future of these media and their impact on the consumer in a May 1996 report on the Hearings entitled "[Anticipating the 21st Century: Consumer Protection Policy in the New High-Tech, Global Marketplace](#)," The report, which forecasted the growth of information technologies and accompanying interactive services, such as on-demand television, remains relevant even today. "I think we got a lot of things right," said Teresa Schwartz, then the Deputy Director of the Bureau and head organizer of the Global Hearings and currently a professor at George Washington University Law School.

The Hearings conveyed a broader view of the Internet, helping the FTC better understand how to regulate it. "We wanted to get a unifying theme of what we would see in the next ten years," Parnes said. Armed with a better understanding of the web after the Hearings, the FTC was motivated to go after Internet entities with greater zeal. During the four years following the Hearings, the Bureau had brought 100 cases against companies that operated on the Internet.

The FTC especially saw legal issues arise over concerns about privacy of personal information that was input online. As the Global Hearings' report put it, "New technologies are pushing some

consumer issues—such as privacy, security, and marketing to children—to the forefront of public debate.” To Parnes, such issues only re-affirmed that “every tech development that brings advantages to consumers also poses risk to consumer fraud.” The future success of the Internet seemed to hinge upon the level of privacy and security that could be ensured for consumers in the coming years. According to Bernstein, it was important that the FTC “made sure we used our authority to be aggressive enforcers” in order to set a standard for safety online.

With the general public just beginning to access the Internet in 1995, the Bureau had to figure out how to approach the new medium as a regulatory body. “The Internet was largely an unknown,” said Eileen Harrington, the Director of Marketing Practices in 1995 and current Deputy Director of the Bureau of Consumer Protection. Until the Hearings, according to Parnes, the agency had been looking at various emerging technologies “piecemeal.” In 1995, the Commission had brought just one consumer protection case against an online entity.

In the view of the FTC, it was also to businesses’ advantage to make sure consumers’ private information was secure on the Internet, which is why the Global Hearings encouraged self-regulation along with and sometimes in lieu of federal enforcement of consumer protection laws. “Good businesses know that their customers need to have confidence,” Harrington said of industries’ motivation to police themselves. The Hearings drove home to participants that the FTC would have limited resources in the coming decade. This affirmed, in Parnes’s view, that “law enforcement standing alone [would] never be enough in consumer protection.”

The discussion of convergence was, for many of the participants, one of the most revelatory moments in the Hearings. According to Parnes, Gerald Levin, then-CEO of Time Warner, did a memorable presentation about synergy between the television and the computer and the interactive technology that this might enable. The convergence phenomenon—which will also be discussed at the Tech-ade Hearings—became increasingly relevant in the years after it was presented at the Global Hearings, according to Schwartz.

However, not everything learned at the hearings was new. The event confirmed that “old issues would migrate to the Net,” according to Harrington. Instances of consumer fraud online were merely “old wine in new bottles,” as Parnes said, agreeing that many of the fraud schemes that the FTC had seen in the past began making their way to the Internet early on. Still, the scope of Internet fraud was potentially much larger. “If you can put a fraudulent ad online, you can reach many more people,” said Parnes.

Some of the major additions to the agency were inspired by what the FTC had learned at the Hearings. These included an office of Consumer and Business Education and an office that advised the agency on International legal issues. According to Schwartz, the Bureau started “making much bigger use of consumer education” because of the Hearings, and the Internet promised to make it cheaper for the FTC to do so. The Bureau also “realized that it needed to communicate with other countries because of the global nature” of the Internet, according to Bernstein.

The Hearings’ interactive, discussion-style format still looks rare in hindsight. “I don’t think that’s often how the government goes into issues,” Parnes said of the event. Everyone involved recalled the exceptionality of the Global Hearings. It allowed the FTC to “learn from the people who [were] the doers and the serious thinkers about what [was] in the pipeline,” said Harrington. “It was much more influential than I ever thought it could be,” said Schwartz.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

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PROTECTING CONSUMERS IN The Next Tech-ade

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[A Look Back at the 1995 Global Hearings](#) »

« [Nanotechnology to Be Studied by the Food and Drug Administration](#)

More Opportunities to Ask the Experts!

Posted on [Thursday 19 October 2006](#)

Next week, you will have two chances to connect with experts of the next Tech-ade and ask them about developments in their fields when Martin E. Abrams and William Halal answer questions as part of the Tech-ade Blog's "Ask the Experts" series.

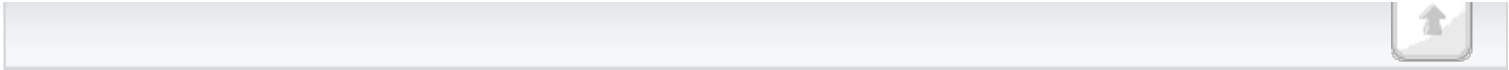
Abrams is Executive Director of the Center for Information Policy Leadership at Hunton & Williams LLP [<http://www.hunton.com/Resources/Sites/general.aspx?id=45>]. He is available to answer your questions about global data flows and privacy and information security issues. He has nearly thirty years experience as a policy innovator working to find practical solutions to privacy and security problems.

Halal is Professor of Science, Technology and Innovation at George Washington University. He will be discussing what the Technology Revolution holds in store for businesses and consumers. Since 1985, Halal has conducted the TechCast Project [www.techcast.org], in which he surveys experts periodically to forecast technology breakthroughs in key fields. TechCast.org serves as a virtual think tank that pools the knowledge of global experts and distributes forecasts in real time.

To participate in either of these exciting online discussions, please submit your question(s) for one or both of these experts to the comments section underneath this entry or email them to techhearings@ftc.gov by **Monday, October 23rd**. Then check back here next week when our experts' answers will be posted!

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Sorry, the comment form is closed at this time.



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Nanotechnology to Be Studied by the Food and Drug Administration

Added on Wednesday, 18 October 2006

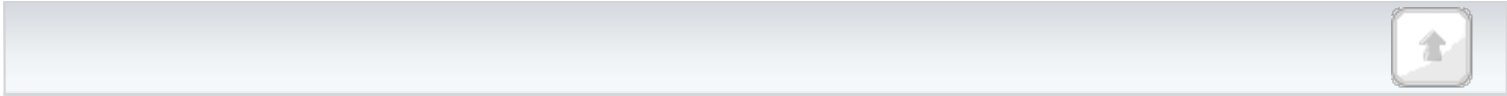
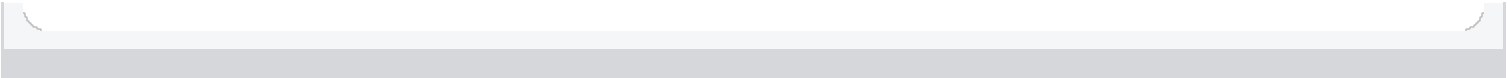
The Food and Drug Administration (FDA) is examining its regulation of nanotechnology, a potentially promising “next Tech-ade” scientific development. Nanotechnology, which is the design and operation of particles on an atomic scale—particles can be as small as one-billionth of a meter—is increasingly being used to make cosmetic and drug products. It is hoped that nanotechnology will be useful in a variety of products, including food, cosmetics, and drugs, but the effects of the tiny particles are still not fully understood. According to the FDA:

Materials made in the nanoscale size range can often have chemical or physical properties that are different from those of their larger counterparts. Such differences include altered magnetic properties, altered electrical or optical activity, increased structural integrity, and increased chemical and biological activity. Because of these properties, nanotechnology materials have great potential for use in a vast array of products. Also because of some of their special properties, they may pose different safety issues than their larger counterparts.

In August of this year, the FDA announced the creation of an internal task force [<http://www.fda.gov/bbs/topics/NEWS/2006/NEW01426.html>] to look into its regulatory standards for nanoproducts. The task force held a public meeting on the issue on October 10 [<http://www.fda.gov/nanotechnology/meeting1010.html>] to deepen the FDA's understanding of the technology and any potential concerns related to it. To learn more, visit: <http://www.fda.gov/nanotechnology/>.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

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PROTECTING CONSUMERS IN The Next Tech-ade

:Tech-ade Blog

« [Filing a Complaint at the FTC](#) [Nanotechnology to Be Studied by the Food and Drug Administration](#) »

A Survey of Corporate Blogs

Posted on [Saturday 14 October 2006](#)

Since the initial appearance of blogs in the mid-1990's, they have been used primarily by individuals as an easy way to communicate opinions to people with similar interests or to share personal thoughts with friends. According to the [Pew Internet American Life Project](#),[1] personal blogs have grown increasingly popular as user-friendly blogging tools became available in the summer of 1999 and blogs received widespread attention from the media during the 2004 presidential election. Pew estimated in July 2006 that the U.S. blog population has grown to about 12 million American adults, or around 8% of U.S. adult Internet users.

More recently, corporations have begun to use the same medium, the blog, to communicate internally, with their employees, as well as externally, with consumers. There has been some reluctance among corporations, however, to dive into the latter category and host blogs that can be accessed by the general public. Corporate blogs, which typically feature the thoughts or opinions of a company executive and permit comments by consumers, run the risk of eliciting negative feedback or straying from a corporation's approved messages.

Despite these concerns, there are some notable cases in which prominent corporations have taken up blogging. According to *The Journal News*, IBM has embraced the medium, and is encouraging employees to blog internally on the company intranet (guidelines on appropriate posting are provided). The company also has made an effort to get its employees blogging externally about subjects that are key to its business goals. AdAge.com reported[2] that within six months, IBM had 15,000 registrants on its internal blog, and over 2,200 external blogs. The success of the IBM blog efforts suggests that corporate blogs may be most effective when they address subject areas in which the corporation can offer its expertise or when they facilitate open communication with readers about company actions, as Robert Scoble's "Scobleizer" blog[3] did for Microsoft.

Blogging has also become a means for CEOs to communicate with their companies' most knowledgeable customers. One example demonstrates that consumer responses received through blogs can be as likely to help a corporation as to cause any harm; in fact, an external blog may have facilitated consumer preferences being taken into account in product development. General Motors Corporation recently announced that it would develop a new Camaro, a make of car that is popular among the automobile aficionados who read GM Vice Chairman Bob Lutz's blog "Fast Lane." [4] While Lutz has said that the Camaro's release was not based on the demand of the blog readers alone, the enthusiasm expressed for it on his blog confirmed the desirability of the car to GM.

A somewhat unconventional corporate blog is sponsored by organic yogurt company Stoneyfield Farm. Entitled "The Bovine Bugle,"[5] the blog is written by farmer Jonathan Gates from Howmars Farm in Franklin, Vermont. The blog offers an image of farm life that emphasizes the integrity of the organic process and enables Gates to field questions from readers. (A recent question posed was whether Howmars Farm milks their cows by hand or by machine. Apparently, the farm has used a machine for the last forty years.) Rather than keeping with the top-down approach that companies traditionally have taken to communicate with customers, Stoneyfield Farm's blog facilitates direct communication between an employee and the customer, potentially advancing the company's organic image.

Whole Foods Market CEO John Mackey uses his blog,[6] which is accessible through the company's website, to publicize speeches he gives at conferences and festivals. More recently, he has used it to broadcast a debate over the book *The Omnivore's Dilemma* by Michael Pollan, including a letter from Pollan detailing his criticisms of the organic grocery chain and Mackey's rebuttal. Here again, it seems the use of a blog is allowing willing CEOs to open up to consumers more than has been customary in the past.

Still, according to the Fortune 500 Business Blogging Wiki,[7] as of October 5, 2006, only 40 of the 500 companies, or 8%, are blogging, and the level of corporate blogging in general depends largely on the industry; although an exact number of corporations who are blogging remains hard to track. Stephen Baker[8] of *Business Week* has said that The Blogging Wiki's count is too low, pointing out that some blogs have not registered on the Wiki, including his own. Whether blogging will catch on as a mode of communication between businesses and consumers remains to be seen, as does the usefulness of a corporate blog to consumers. We encourage you to let us know if you read corporate blogs, and whether you find them helpful.

[1] Amanda Lenhart and Susannah Fox, *Bloggers: a portrait of the internet's new storytellers*, Pew Internet & American Life Project, July 19, 2006, <http://www.pewinternet.org/pdfs/PIP%20Bloggers%20Report%20July%2019%202006.pdf>, last accessed Oct. 412, 2006.

[2] http://adage.com/abstract.php?article_id=47369.

[3] <http://scobleizer.wordpress.com/>.

[4] <http://fastlane.gmblogs.com/>.

[5] <http://stonyfield.typepad.com/bovine/>.

[6] <http://www.wholefoodsmarket.com/blogs/jm/>.

[7] <http://www.socialtext.net/bizblogs/index.cgi>.

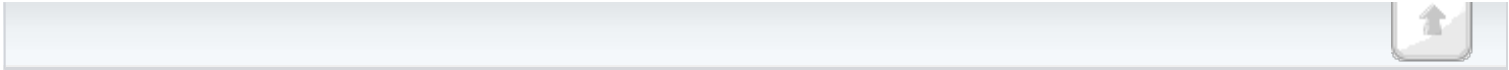
[8]

http://www.businessweek.com/the_thread/blogspotting/archives/2006/01/fortune_500_blo.html.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

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Bloggers

A portrait of the internet's new storytellers

July 19, 2006

Amanda Lenhart, Senior Research Specialist

Susannah Fox, Associate Director

Summary of Findings

Blogging is bringing new voices to the online world.

A telephone survey of a nationally-representative sample of bloggers has found that blogging is inspiring a new group of writers and creators to share their voices with the world. Some 54% of bloggers say that they have never published their writing or media creations anywhere else; 44% say they have published elsewhere. While generally youthful, these writers otherwise represent a broad demographic spectrum of people who cite a variety of topics and motives for their blogging.

Eight percent of internet users, or about 12 million American adults, keep a blog. Thirty-nine percent of internet users, or about 57 million American adults, read blogs – a significant increase since the fall of 2005.

Telephone surveys capture a current snapshot of an ever-changing blog universe.

The Pew Internet & American Life Project deployed two strategies to interview bloggers.

First, as part of our standard random-digit dial tracking surveys about internet use among a nationally-representative sample of American adults, we asked respondents if they maintain a blog. Then, we called back these self-identified bloggers between July 2005 and February 2006. Seventy-one percent of those called back completed this second telephone survey, which focused exclusively on blogging. The remaining 29% said they were no longer keeping a blog or were not willing to take another survey, and we eliminated them from the callback interviews. This strategy yielded a relatively small number of respondents (n=233) but allowed us to ask in-depth questions of a nationally-representative sample of bloggers. Numbers cited in this report are based on the callback survey unless specifically noted.

Our second strategy for preparing this report involved fielding additional random-digit surveys between November 2005 and April 2006 to capture an up-to-date estimate of the percentage of internet users who are currently blogging. These large-scale telephone surveys yielded a sample of 7,012 adults, which included 4,753 internet users, 8% of whom are bloggers.

This Pew Internet & American Life Project report is based on the findings of daily tracking surveys on Americans' use of the internet and a special callback survey of bloggers. All numerical data was gathered through telephone interviews conducted by Princeton Survey Research Associates. The tracking surveys were conducted between November-December 2005 and February-April 2006, with a combined sample of 7,012 adults, aged 18 and older. For results based on internet users (n=4,753), one can say with 95% confidence that the error attributable to sampling and other random effects is +/- 3%. For tracking survey results based on bloggers (n=308) the margin of error is +/- 7%. The blogger callback survey was conducted between July 5, 2005, and February 17, 2006, among a sample of 233 bloggers, age 18 and older. The margin of error for this sample is +/- 7%.

While many well-publicized blogs focus on politics, the most popular topic among bloggers is their life and experiences.

The Pew Internet Project blogger survey finds that the American blogosphere is dominated by those who use their blogs as personal journals. Most bloggers do not think of what they do as journalism.

Most bloggers say they cover a lot of different topics, but when asked to choose one main topic, 37% of bloggers cite “my life and experiences” as a primary topic of their blog. Politics and government ran a very distant second with 11% of bloggers citing those issues of public life as the main subject of their blog.

Entertainment-related topics were the next most popular blog-type, with 7% of bloggers, followed by sports (6%), general news and current events (5%), business (5%), technology (4%), religion, spirituality or faith (2%), a specific hobby or a health problem or illness (each comprising 1% of bloggers). Other topics mentioned include opinions, volunteering, education, photography, causes and passions, and organizations.

The blogging population is young, evenly split between women and men, and racially diverse.

The following demographic data comes from two surveys of internet users conducted in November-December 2005 and February-April 2006 (n=7,012).

- The most distinguishing characteristic of bloggers is their youth. More than half (54%) of bloggers are under the age of 30. Like the internet population in general, however, bloggers are evenly divided between men and women, and more than half live in the suburbs. Another third live in urban areas and a scant 13% live in rural regions.
- Another distinguishing characteristic is that bloggers are less likely to be white than the general internet population. Sixty percent of bloggers are white, 11% are African American, 19% are English-speaking Hispanic and 10% identify as some other race. By contrast, 74% of internet users are white, 9% are African American, 11% are English-speaking Hispanic and 6% identify as some other race.

Relatively small groups of bloggers view blogging as a public endeavor.

Despite the public nature of creating a blog, most bloggers view it as a personal pursuit.

- 55% of bloggers blog under a pseudonym, and 46% blog under their own name.
- 84% of bloggers describe their blog as either a “hobby” or just “something I do, but not something I spend a lot of time on.”
- 59% of bloggers spend just one or two hours per week tending their blog. One in ten bloggers spend ten or more hours per week on their blog.

Summary of Findings

- 52% of bloggers say they blog mostly for themselves, not for an audience. About one-third of bloggers (32%) say they blog mostly for their audience.

The main reasons for keeping a blog are creative expression and sharing personal experiences.

The majority of bloggers cite an interest in sharing stories and expressing creativity. Just half say they are trying to influence the way other people think.

More Blog to Share Experiences Than to Earn Money			
Please tell me if this is a reason you personally blog, or not:	Major reason	Minor reason	Not a reason
To express yourself creatively	52%	25%	23%
To document your personal experiences or share them with others	50	26	24
To stay in touch with friends and family	37	22	40
To share practical knowledge or skills with others	34	30	35
To motivate other people to action	29	32	38
To entertain people	28	33	39
To store resources or information that is important to you	28	21	52
To influence the way other people think	27	24	49
To network or to meet new people	16	34	50
To make money	7	8	85

Source: Pew Internet & American Life Project Blogger Callback Survey, July 2005-February 2006. N=233. Margin of error is $\pm 7\%$.

Only one-third of bloggers see blogging as a form of journalism. Yet many check facts and cite original sources.

- 34% of bloggers consider their blog a form of journalism, and 65% of bloggers do not.
- 57% of bloggers include links to original sources either “sometimes” or “often.”
- 56% of bloggers spend extra time trying to verify facts they want to include in a post either “sometimes” or “often.”

Bloggers are avid consumers and creators of online content. They are also heavy users of the internet in general.

Fully 79% of bloggers have a broadband connection at home, compared with 62% of all internet users. This high-speed access translates into heavy media consumption and creation.¹ For example:

- 95% of bloggers get news from the internet, compared with 73% of all internet users.
- 77% of bloggers have shared their own artwork, photos, stories, or videos online, compared with 26% of all internet users.
- 64% of bloggers say they go online several times each day from home, compared with 27% of all internet users.

Bloggers are major consumers of political news and about half prefer sources without a particular political viewpoint.

- 72% of bloggers look online for news or information about politics; by contrast, just 58% of all internet users do so.
- 45% of bloggers say they prefer getting news from sources that do not have a particular political point of view; roughly the same percentage of the general internet population agrees.
- 24% of bloggers prefer political news from sources that challenge their viewpoint; and 18% choose to use sources that share their political viewpoint. Again, bloggers' responses are similar to those of the general internet population.

Bloggers often use blog features that enhance community and usability.

Community-focused blogging sites LiveJournal and MySpace top the list of blogging sites used in our sample, together garnering close to a quarter (22%) of all bloggers. Features such as comments, blogrolls, friends lists, and RSS feeds on these and other blogging sites facilitate a sense of community and offer readers additional ways to receive and interact with the blog's content.

- 87% of bloggers allow comments on their blog.
- 41% of bloggers say they have a blogroll or friends list on their blog.
- Only 18% of bloggers offer an RSS feed of their blog's content.

¹ The overall blogging with broadband number and general population comparison are drawn from December 2005 and February-April 2006 Pew Internet telephone surveys.

Summary of Findings

Bloggers by the Numbers	
	Median
Number of hours per week spent working on your blog	2
Number of links on your blogroll or list	10
Number of blogs that link to your blog	13

Source: Pew Internet & American Life Project Blogger Callback Survey, July 2005-February 2006. The median is the midpoint – half of bloggers gave an answer above that number, half gave an answer below it. Note: More charts like this are in the last section, “Bloggers by the Numbers.”

Bloggers: Summary of Findings at a Glance
Blogging is bringing new voices to the online world.
Telephone surveys capture the most accurate snapshot possible of a small and moving target.
Contrary to the impression created by the press attention on political blogging, just 11% of bloggers say they focus mainly on government or politics.
The blogging population is young, evenly split between women and men, and racially diverse.
Relatively small groups of bloggers view blogging as a public endeavor.
The main reasons for keeping a blog are creative expression and sharing personal experiences.
Only one-third of bloggers see blogging as a form of journalism. Yet many check facts and cite original sources.
Bloggers are avid consumers and creators of online content. They are also heavy users of the internet in general.
Bloggers are major consumers of political news and about half prefer sources without a particular political viewpoint.
Bloggers often utilize community and readership-enhancing features available on their blogs.
Source: Lenhart, Amanda and Susannah Fox. <i>Bloggers</i> . Washington, DC: Pew Internet & American Life Project, July 19, 2006.

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Methodology

Acknowledgements

On behalf of the Pew Internet & American Life Project, the authors would like to acknowledge the contributions to this study by the following people:

Niki Woodard, a research intern for the Project, contributed a literature review and editorial insights.

About the Pew Internet & American Life Project: The Pew Internet & American Life Project produces reports that explore the impact of the internet on families, communities, work and home, daily life, education, health care, and civic and political life. The Project aims to be an authoritative source on the evolution of the internet through collection of data and analysis of real-world developments as they affect the virtual world. Support for the project is provided by The Pew Charitable Trusts. The project is an initiative of the Pew Research Center. The project's website: www.pewinternet.org

About Princeton Survey Research Associates: PSRA conducted the survey that is covered in this report. It is an independent research company specializing in social and policy work. The firm designs, conducts, and analyzes surveys worldwide. Its expertise also includes qualitative research and content analysis. With offices in Princeton, New Jersey, and Washington, D.C., PSRA serves the needs of clients around the nation and the world. The firm can be reached at 911 Commons Way, Princeton, NJ 08540, by telephone at 609-924-9204, by fax at 609-924-7499, or by email at ResearchNJ@PSRA.com

Part 1.

Introduction

Blogging is bringing new voices to the online world.

A telephone survey of a nationally-representative sample of bloggers has found that blogging is inspiring a new group of writers and creators to share their voices with the world.

We find that bloggers blog for many different reasons – some blog to exercise their creative muscles, others want to motivate or influence others. Bloggers may want to stay in touch with family and friends, others want to network and meet new people. Bloggers may use their blog as a way of documenting ideas and events and storing them for later retrieval, while others view it as a way to share, to entertain, and even to earn a living.

Some observers have suggested that blogging is nothing more than the next step in a burgeoning culture of narcissism and exhibitionism spurred by reality TV and other elements of the modern media environment. But others contend that blogging promises a democratization of voices that can now bypass the institutional gatekeepers of mainstream media. This democratization is thought to have implications for the practice and business of journalism as well as the future of civic and political discourse.

The Pew Internet & American Life Project wanted to explore the questions of who, what, where, when and how of blogging by going directly to the source – bloggers themselves. This report details the findings of a callback telephone survey of bloggers conducted over approximately six months in 2005-2006. In standard internet tracking surveys of nationally representative samples of American adults by the Pew Internet & American Life Project, a question is asked of all internet users about whether they maintain a blog. Once several hundred bloggers were identified in those standard surveys, the bloggers were called back and asked questions about their specific motivations, their blogging behaviors, the content of their postings, the features on their blogs, and their views about the impact of their blogs.

The blogging population is young, evenly split between women and men, and racially diverse.

According to random-digit dial surveys conducted in the spring of 2006, 8% of internet users age 18 and older, or about 12 million American adults, report keeping a blog. According to a random-digit dial survey conducted in January 2006, 39% of internet

Part 1. Introduction

users age 18 and older, or about 57 million American adults, report reading blogs.² And as described in the Pew Internet Project's *Teen Content Creators and Consumers* report,³ 19% of internet users age 12-17 keep a blog and 38% of online teens read blogs.

"Internet users" — Respondents who answer yes to at least one of the following questions: "Do you use the internet, at least occasionally?" and "Do you send or receive email, at least occasionally?"

Bloggers are overwhelmingly young adults who hail from urban and suburban areas. They are evenly divided between men and women. Bloggers are less likely than internet users to be white.⁴

More than half (54%) of bloggers are under the age of 30, and about another third (30%) are between 30 and 50. Just 14% of bloggers fall in the 50 to 64 age group and a tiny 2% are 65 or older. In comparison, only 24% of internet users are age 18-29. Nearly half of internet users (45%) are age 30 to 49 and another quarter (24%) are age 50 to 64. About 7% of internet users are 65 or older.

"Bloggers" — A subset of internet users who answer yes to the following question: "Do you ever create or work on your own online journal or weblog?"

More than half (51%) of bloggers reside in suburban areas, similar to the 54% of internet users who live in the same type of community. Another third (36%) of bloggers live in urban areas, and few bloggers (13%) reside in rural regions, in both cases reflecting a similar distribution of internet users (30% and 16% respectively).

Bloggers are less likely to be white than internet users. While 60% of bloggers are white, 11% are African American, 19% are English-speaking Hispanic and 10% are some other race or ethnicity. By contrast, among internet users 74% are white, 9% are African American, 11% English-speaking Hispanic and 6% are some other race or ethnicity.

² Please note that the question wording for the February-April 2006 survey was slightly different from the wording used to gather sample for our Blogger Callback survey throughout 2004 and 2005. In the February-April survey, the question was as follows: "Do you ever create or work on your own online journal or weblog?" The previous question was "Do you ever create a weblog or blog that others can read on the Web?" Given the rapid growth in the blogosphere, we felt it important to report the most recent data.

³ Please see http://www.pewinternet.org/PPF/r/166/report_display.asp

⁴ Data for this section of the report comes from our February-April 2006 Tracking surveys. The n for bloggers is 175, and margin of error is +/- 8%. The n for internet users is 2,822 and the margin of error is +/- 2%.

Bloggers vs. Internet Users in General		
Demographic Groups	Bloggers	All Internet Users
Sex	%	%
Men	54	49
Women	46	51
Age		
18-29	54	24
30-49	30	45
50-64	14	24
65+	2	7
Race/Ethnicity		
White (non-Hispanic)	60	74
Black (non-Hispanic)	11	9
Hispanic (English-speaking)	19	11
Other	10	6
Location		
Suburban	51	54
Urban	36	30
Rural	13	16
Access Speed		
Dial-up	20	34
Broadband	79	62

Source: Pew Internet & American Life Project Tracking Surveys, November – December 2005 and February – April 2006. For sample based on bloggers, N=308. Margin of error is $\pm 7\%$. For sample based on internet users, n=4,753, margin of error is $\pm 2\%$.

Part 2.

Media and Communication Habits of Bloggers

Broadband is the norm among bloggers, as is going online several times each day.

A majority of bloggers (79%) have a high-speed connection to the internet at home and more than half are between 18 and 29 years old. By comparison, 62% of adult internet users have broadband at home and about one in five is under 30.⁵ This combination of broadband, youth, and interest in content creation translates into heavy media consumption among bloggers.

On a typical day, 84% of bloggers go online, a higher daily participation rate than the general population of home broadband users (78%) and other internet users age 18-29 (66%). Sixty-four percent of bloggers say they go online several times a day from home, outstripping both their high-speed counterparts and young internet users in the general internet user population. Thirty-nine percent of home broadband users and 34% of internet users age 18-29 go online several times a day. By comparison, 27% of all internet users go online from home several times a day.

There is no significant difference between bloggers and other internet users when it comes to frequency of use at work or other places. About four in ten internet users go online several times a day at work and a very small group (about 5%) goes online several times a day from someplace else, like an internet café or library. Interestingly, bloggers are less likely than the rest of the internet population to volunteer that they “never” go online from someplace else – 34% of bloggers vs. 55% of all internet users.

Bloggers are avid online news readers, particularly political news.

Bloggers, most of whom have a high-speed connection at home, are highly likely to read news online. Ninety-five percent of bloggers get news from the internet and 71% say they do so on a typical day. Bloggers’ news reading outpaces even home broadband users, who are among the most enthusiastic online news readers. By comparison, 80% of home broadband users get news online and 63% do so on a typical day.⁶

Bloggers also gather news from diverse sources. Fifty-five percent of bloggers get news from email newsletters or list-servs and 34% do so on a typical day. By comparison, 48%

⁵ Pew Internet & American Life Project February-April 2006 survey.

⁶ Pew Internet & American Life Project January-February 2006 survey.

Part 2. Media and Communication Habits of Bloggers

of home broadband users get news from an email newsletter; 29% of home broadband users do so on a typical day.

Online News		
Do you ever...	Bloggers	All Internet Users
Get news from the internet	95%	73%
Look online for news or information about politics or political campaigns	72	58
Get news from email newsletters or listservs	55	29
Get news from a blog	47	9

Source: Bloggers data is from the Pew Internet & American Life Project Blogger Callback Survey, July 2005-February 2006. N=233. Margin of error is $\pm 7\%$. For the question pertaining to campaign news, internet user data is from the Pew Internet Project November 2004 survey. N=1,324. Margin of error is $\pm 3\%$. For the question pertaining to listservs, internet user data is from the Pew Internet Project June-July 2004 survey. N=1,510. Margin of error is $\pm 3\%$. For other questions the internet user data is from the Pew Internet Project December 2005 survey. N=1,931. Margin of error is $\pm 2\%$.

Not surprisingly, about half of bloggers turn to blogs as a source for news. Forty-seven percent of bloggers say they have gotten news from blogs and 26% do so on a typical day. By comparison, 9% of internet users say they have gotten news from blogs and 3% do so on a typical day.

Bloggers prefer balanced sources of news.

Bloggers are about as likely as the general internet population to pursue non-partisan news sources. Forty-five percent of bloggers (and 50% of all internet users) say they prefer getting news from sources that do not have a particular political point of view. Twenty-four percent of bloggers (and 18% of all internet users) say they prefer getting news from sources that challenge their political point of view. Eighteen percent of bloggers (and 22% of all internet users) say they prefer getting news from sources that share their political point of view.

Bloggers are also pretty typical of the rest of the internet population when it comes to their motivations for reading news online. Forty-two percent of news-reading bloggers (and 40% of all online news readers) say they go online to get news and information because it is more convenient. Twenty-eight percent of news-reading bloggers (and 29% of all online news readers) say they get news online because they can get information from a wider range of viewpoints on the Web. Nine percent of news-reading bloggers (and 24% of all online news readers) say they get news online because they can get more in-depth information on the Web. Eighteen percent of news-reading bloggers (and 2% of all online news readers) say their reasons are a combination of all three choices.

Newspapers, television, and radio are also part of bloggers' daily news diet.

Bloggers are also avid consumers of off-line sources of news and information, but no more so than other internet users. On a typical day, bloggers are about as likely as other internet users to get news from newspapers, TV, magazines, and the radio. Eighty-five percent of both groups (internet users and bloggers) read newspapers and about half do so on a typical day. About nine in ten internet users, and the same share of bloggers, watch television news and between two-thirds and three-quarters do so on a typical day. A bit more than half of both groups read magazines for news and about one-quarter do so on a typical day. Three-quarters of both groups listen to radio news and about half do so on a typical day.

Bloggers are highly engaged with tech-based social interaction.

Bloggers are among the most enthusiastic communicators of the modern age, taking advantage of nearly every opportunity to communicate. Seventy-eight percent of bloggers say they send or receive instant messages. By comparison, 38% of all internet users send and receive instant messages. Again, bloggers outstrip their high-speed counterparts (40% of home broadband users IM) and even internet users between 18 and 29 years old (54% of whom IM). Fifty-five percent of bloggers say they send or receive text messages using a cell phone, compared with 40% of home broadband users and 60% of younger internet users.

Bloggers also like to create and share what they make. Forty-four percent of bloggers have taken material they find online – like songs, text, or images – and remixed it into their own artistic creation. By comparison, just 18% of all internet users have done this.⁷ A whopping 77% of bloggers have shared something online that they created themselves, like their own artwork, photos, stories, or videos. By comparison, 26% of internet users have done this.⁸

Bloggers are likely to have the gadgets to support their online proclivities for social interaction and creativity. Fully 89% of bloggers have used a cell phone in the past month and 78% have used a digital camera during that time. Fifty-six percent of bloggers have used a laptop computer equipped with a wireless modem in the past month and 47% have used an iPod or MP3 player. Bloggers are not as likely to have used a PDA, like a Palm Pilot or pocket PC – just 28% say they have done so within the past month.

⁷ Pew Internet & American Life Project January-February 2005 survey.

⁸ Pew Internet & American Life Project November-December 2005 survey.

Part 3.

Motivation and Content

Two groups of bloggers emerge from our survey: Those who view their blogs as a personal, and somewhat private, hobby and a smaller group who view their blogs as more time-consuming, and more public, endeavors. For both groups, the primary motivations to blog are to express themselves creatively and to record their personal experiences.

For most, blogging is a hobby, not an activity that consumes their lives.

When asked “What does your blog mean to you?” the largest group of bloggers (44%) replied that their blog is “something I do, but not something I spend a lot of time on,” a point that meshes with the findings that bloggers do not update their blogs very frequently and do not spend much time updating their blogs in any given week. Only 13% of bloggers post new material every day. The typical blogger spends five hours per week updating his or her main blog. Another sizable contingent of bloggers (40%) describes blogging as a hobby that they enjoy working on when they can. There is a smaller core of devoted users, just 13%, who say that their blog is very important to them, and describe it as a big part of their life.

Not surprisingly, those who say blogging is an important part of their life are more apt to update their blog frequently. This small group is also more likely to earn money from their blog, via advertisements, tip jars or paid content, and to consider their blog a form of journalism.

Blogging is usually the first foray into authorship; bloggers blog to express themselves creatively and share personal experiences.

Sixty-two percent of bloggers did not have a personal website before launching their blog and 54% of bloggers had not published their writing or media creations anywhere else, either online or offline.

Three in four bloggers (77%) told us that expressing themselves creatively was a reason that they blog. Younger and lower-income bloggers were more likely than other groups to give this as a reason to blog. Similarly, most bloggers (76%) say that they blog to document their personal experiences and share them with others. Younger users were among the most likely to say that they blog to document and share their lives.

Part 3. Motivation and Content

More Blog to Share Experiences Than to Earn Money			
Please tell me if this is a reason you personally blog, or not:	Major reason	Minor reason	Not a reason
To express yourself creatively	52	25	23
To document your personal experiences or share them with others	50	26	24
To stay in touch with friends and family	37	22	40
To share practical knowledge or skills with others	34	30	35
To motivate other people to action	29	32	38
To entertain people	28	33	39
To store resources or information that is important to you	28	21	52
To influence the way other people think	27	24	49
To network or to meet new people	16	34	50
To make money	7	8	85

Source: Pew Internet & American Life Project Blogger Callback Survey, July 2005-February 2006. N=233. Margin of error is $\pm 7\%$.

Bloggers are also anxious to share what they know with others. Fully 64% of bloggers say that they blog to share practical knowledge or skills with others. Older bloggers (age 50-64) are the most likely group to say this is a reason to keep a blog.

More than six in ten bloggers (61%) say they blog to motivate other people to take action, and a similar percentage say they blog to entertain. Older, wealthier bloggers are more likely to list motivating others as a major reason to blog. Men are more likely than women (67% to 52%) to say that they blog to entertain people.

Another 60% of bloggers say they blog to keep in touch with family and friends. Women who blog and younger bloggers (age 18-29) are more likely than other groups to say that keeping in touch is a major reason for blogging.

About half of all bloggers say they blog to network or meet new people, and half say they blog to influence the way other people think. Younger bloggers (age 18-29) and lower income bloggers are more likely than other groups to say they blog to meet new people. Male bloggers are more likely than female bloggers to blog to influence others.

About half (48%) of bloggers say they use their blog as a storage site or memory device. Older bloggers (over age 50) are more likely than younger bloggers to say that storing resources or information that is important to you is a main reason they publish their blog.

The least common reason people blog is to make money. Only 15% of bloggers report this as a reason for their blog-keeping, and just 7% call making money a major reason. Bloggers over age 30 are more likely than younger bloggers to give making money as a reason to blog.

Most bloggers do not confine themselves to one topic.

Nearly two-thirds of bloggers (64%) say they blog on a lot of different topics. The remaining third (35%) say they focus on one topic. Older bloggers (over age 30), higher-income bloggers and parents who blog are more likely to say that they blog about one topic, while younger bloggers (age 18-29) are more likely to say that they blog about many different topics.

Personal experiences are the most popular topic, but politics, entertainment, and sports are also frequently discussed.

While blogs can address any conceivable subject, we asked bloggers to classify the main topic of their blog. The largest percentage of bloggers in our sample (37%) say that “my life and personal experiences” was the main topic. Women who blog and younger bloggers were more likely than other groups to say that they blogged mainly about personal experiences. Politics and government is the next most popular topic, with 11% of bloggers citing it as the main subject of their posts. Bloggers in their thirties and forties and college-educated bloggers were more likely than other groups to list this as a main topic, though still in lower percentages than personal journal-style blogging.

Entertainment-related topics were the next most popular blog-type, with 7% of bloggers, followed by sports (6%)—a topic favored by more men than women—general news and current events (5%), business (5%), technology (4%), religion, spirituality or faith (2%), a specific hobby or a health problem or illness (each comprising 1% of bloggers). Other topics mentioned include opinions, volunteering, education, photography, causes and passions, and organizations.

Personal experiences provide the most inspiration for bloggers.

Bloggers are inspired, for the most part, by things that happen to them, or something they read or observe. More than three-quarters of bloggers (78%) say that a personal experience has inspired them to post. Only 12% say they have never posted about a personal experience. Women who blog and younger bloggers (age 18-29) are more likely than other groups to say they are often motivated to post by a personal experience.

The news media also prove inspirational as 55% of bloggers report that they often or sometimes post because of something they heard or read in the news media. Bloggers frequently inspired by the news media tend to identify politically as Democrats or Independents. Republicans are also inspired to blog by the news, but less often than the

other two groups. Other people's blogs also instigate blog postings, with more than half of all bloggers (54%) reporting that something they read on another blog inspired a post.

Entertainment media also stimulates the creative juices of bloggers – four in ten (40%) bloggers have often or sometimes posted because of a song, movie or television program they encountered. Younger bloggers (age 18-29) and those with lower levels of education are more likely than other groups to be inspired to post by entertainment media. And close to a third of bloggers are inspired by something else: religious faith, books they have read, holidays or seasons, or the experiences of others.

Half of bloggers keep one blog and most do not share authorship with anyone else.

There is not necessarily a one-to-one relationship between bloggers and blogs. A little more than half of all bloggers (53%) have just one blog, but another 17% have two blogs, and 26% author three or more. Of bloggers who report having more than one blog, more than half (61%) say that they have three or more blogs. Not surprisingly, bloggers with more blogs report spending more hours per week on average tending their blogs than do single-author bloggers. It is also not clear whether all of the blogs of multi-bloggers are currently active.

In addition to individual bloggers with multiple blogs, sometimes a single blog has multiple authors. Nearly three in ten bloggers say that their primary blog is a multi-author blog. Seven in ten say that they are the only author of their main blog.

Bloggers who are the sole author of their blog are more likely to report that they blog for themselves rather than for the benefit of their audience. On the other side, bloggers who post on group blogs are more likely to report that they blog more for their audience than for themselves.

More than half of bloggers use a pseudonym.

Blog content that is appropriate or even funny for a friend can also be cause for dismissal to a supervisor or employer. To avoid the problem of colliding life spheres and to protect personal privacy, many bloggers use a pseudonym to keep their offline life separate from their online thoughts. In fact, a bit more than half of bloggers (55%) surveyed say they blog under a pseudonym or made-up name, while 43% say they blog using their real name.

Only a third of bloggers think their blog is a form of journalism.

While others sometimes characterize them as journalists, bloggers themselves generally do not think of what they do as journalism. Only a third of bloggers (34%) say that their blog is a form of journalism, while two-thirds (65%) say it is not. To probe further into

Part 3. Motivation and Content

this question, we asked bloggers whether they engage in practices generally associated with journalism: directly quoting sources, fact checking, posting corrections, receiving permission to post copyright material and linking to original source materials outside of the blog.

Are Bloggers Journalists?						
34% of bloggers self-define as journalists; the remainder do not. Below are some activities that journalists engage in, and the % of bloggers who do them on their blog.						
How often, if ever do you do the following things on your blog?	Often	Sometimes	Hardly ever	Never	Does not apply to me	Do not know/Refused
Spend extra time trying to verify facts	35%	21%	14%	28%	2%	0%
Quote other people/media directly	15	25	13	41	5	0
Get permission to post copyrighted material	12	8	11	50	17	1
Include links to original source material	35	22	14	27	2	0
Post corrections	11	27	21	38	2	0

Source: Pew Internet & American Life Project Blogger Callback Survey, July 2005-February 2006. Margin of error is $\pm 7\%$.

Overall, the most frequently reported journalistic activities are spending extra time verifying facts included in a posting, and including links to original source material that has been cited or in some way used in a post. Just a bit more than a third of bloggers (35%) say they have done these two activities “often.” Another 22% say that they “sometimes” engage in these practices on their blog. Verification of facts was more likely to be reported by bloggers over age 30 and those with a college degree. Those with greater levels of education were more likely to link to original source material than those with less formal education.

Just one in seven (15%) bloggers say they quote people or other media directly on their blog “often,” and another 12% of bloggers say they often seek permission before posting copyrighted material to their blog. Conversely, more than two in five bloggers say they “never” quote sources or other media directly in their blog. Women who blog, younger bloggers, and those with less education are more likely than other groups of bloggers to report “never” quoting directly. Just 11% of bloggers often post corrections on their blog.

Part 4.

The Practice of Blogging

The reality of a blogger's publishing schedule is probably familiar to anyone who juggles a career, a personal life, and a favorite hobby: bloggers cram in their updates when and where they can, and when inspiration strikes.

Most bloggers post infrequently.

While many of the most popular blogs on the internet post material frequently, even multiple times per day, the majority of bloggers do not post nearly so often.⁹ One-quarter of bloggers post one to two days a week, and about one in seven bloggers (15%) post three to five days a week. Twenty-eight percent of bloggers say they post new material to their blog every few weeks. About one in five bloggers (19%) post every few weeks or less often.

In our sample, 13% post daily or more frequently. Bloggers who have had a personal website in the past are more likely to post material daily to their blog, as are bloggers who report higher than average levels of blog traffic.

Seven in ten bloggers post when inspiration strikes, not on a set schedule.

Most bloggers say they post to their blog when something inspires them. Fully 70% of bloggers only post when inspiration strikes, while 22% of bloggers usually update on a regular schedule. A lucky 4% of bloggers say that both options are true: Inspiration strikes on schedule. Another 4% say that neither mode describes their posting habits, or they were not sure.

The typical blogger spends about two hours per week on their blog.

On average, bloggers do not spend a great deal of time on their blogs. Six in ten bloggers (59%) report spending one to two hours a week on their blog, and another quarter spend 3 to 9 hours a week blogging. One in ten (10%) spend ten or more hours a week tending their blog. Six percent did not answer the question or did not know how many hours they spent per week. Younger bloggers, despite being more likely to keep a blog, generally spend fewer hours per week working on their blog.

⁹ "Popular" here is defined based on the Technorati designation of the top 100 blogs, which measures popularity through the number of inbound links to a blog.

Bloggers who spend the least amount of time per week on their blog tend to be the sole author of a single blog and update it mainly for their own enjoyment. Bloggers who spend the most time per week on their blogs (ten or more hours) are more likely to say that lots of bloggers link to their blog.

Most bloggers have blogged three years or less.

A suite of user-friendly blogging tools became available in the summer of 1999, and the practice of blogging achieved high levels of media attention and public awareness during the 2004 presidential campaign. Thus, is it not entirely surprising that most bloggers have been blogging for three years or less.¹⁰

Most Began Blogging Within the Last Three Years	
% of bloggers	
Six months or less	18%
About a year	33
Two to three years	30
Four or more years	19

Source: Pew Internet & American Life Project Blogger Callback Survey, July 2005-February 2006. Margin of error is $\pm 7\%$.

Most blog from home.

Two types of location are relevant to blogging—the place where the blogger blogs from, and the space or software that hosts or enables the blog’s public expression. Eight out of ten (83%) of bloggers say that they usually blog from home, while 7% say they usually blog at work, and another 6% blog equally at home and at work. Another 3% say they usually blog from somewhere else, usually a friend or relative’s house, a library, or on-the-go with a mobile device like a cell phone or PDA.

Higher income users are more likely than other groups to say that they blog from work. Thirteen percent of those living in households with more than \$75,000 annual income say they blog from work, compared with 3% of those living in households with annual incomes totaling less than \$50,000.

¹⁰ According to Technorati, a website that has monitored a large segment of the universe of blogs since March 2003, the number of blogs doubles approximately every 5 to 6 months.
<http://www.sifry.com/alerts/archives/000432.html>

LiveJournal tops the list of blogging sites in this survey.

In our sample of bloggers, LiveJournal was the most popular blogging site, with 13% of respondents blogging there. MySpace was next in popularity, followed by Blogger, Xanga, FrontPage, Typepad, Blogspot, Moveable Type and Squarespace. Nearly 1 in 6 (17%) bloggers say they use some other type of blogging software to host their blog, 2% say they built their own software, and 5% say they blog without using specific blogging software at all. Dial-up users are most likely to name MySpace and LiveJournal as their blogging software source.

Some of the responses to this question illustrate the variety of definitions that people apply to blogging. Some respondents told us that they blogged on Facebook, which is generally not considered to be blog hosting software, but where links to blogs may be posted. Other respondents told us they blog at Slashdot, a large long-standing online community focused on technology issues that has been considered by some to be a massive multi-author blog.

Among the various blogging software options, there are some demographic differences among their users. LiveJournal users are more likely to be female (22% of all female bloggers in our sample used LiveJournal compared with only 7% of the males) and young – nearly one in five of our 18-29 year old bloggers used LiveJournal. Blogger had more than its share of college graduates with 13% of college-educated bloggers using Blogger and 12% using LiveJournal as compared with 4% of bloggers with college degrees who use MySpace and 2% who use Xanga. MySpace has a larger share of bloggers who have not yet continued their education past high school.

Blog Tools Bloggers use a variety of Web services and software packages to build and display their blogs	
	% of bloggers
LiveJournal	13%
MySpace	9
Blogger	6
Xanga	2
FrontPage	2
Typepad	2
Blogspot	2
Moveable Type	1
Squarespace	1
Something else	17
Built own blogging software	2
Do not use blogging software	5
Do not know/Refused	38

Source: Pew Internet & American Life Project Blogger Callback Survey, July 2005-February 2006. Margin of error is $\pm 7\%$.

Text dominates most blogs, but one-third of bloggers post audio files.

As might be expected, writing rules the blogosphere, but bloggers also communicate by sharing a wide array of multimedia content. Most bloggers post text to their blog, in the form of essays, articles or written entries; four out of five bloggers (80%) post text to their blog, but nearly as many (72%) display photos on their blog.

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Text and Photos Dominate Blogs	
	% of bloggers
Text	80%
Photos	72
Images other than photos, like clip art, graphs	49
Audio	30
Video	15

Source: Pew Internet & American Life Project Blogger Callback Survey, July 2005-February 2006. Margin of error is $\pm 7\%$.

Nearly half of all bloggers (49%) say they have posted images other than photos to their blog – items such as drawings, graphs or clip art.

“Vlog” – a shortened form of the word “videoblog,” which is a blog that features video clips

Close to a third (30%) of bloggers had posted audio files to their blog and another 15% vlogged, or posted video files to their blog. Bloggers who have more than one blog, bloggers who contribute to group blogs and bloggers who report working on their blog three or more hours a week are more likely than other bloggers to post audio and video files to their site, as well as drawings, graphs or clip art.

Bloggers for pay is rare.

Even as a subset of bloggers gain prominence in the media and as traffic to blogs grows, blogging is not exactly the most lucrative of hobbies, let alone professions. Only 15% say earning money is a reason they blog and only 8% of bloggers report actual income. These bloggers are mostly older than age 50.

Selling items is the most popular way for this group of bloggers to raise money. About seven in ten bloggers who make money do so by selling things on their site. Bloggers can sell items branded with their own logo or sentiment through fulfillment sites such as CafePress.com or they can join something akin to the Amazon Associates program that allows individuals who recommend an item for sale on the Amazon site to receive a small payment every time someone uses the link the individual provides to purchase the recommended item.

Blog advertisements are another popular way for bloggers to earn money; about half of money-earning bloggers do so through ads. About a third of money-earning bloggers say they get cash from online “tip jars” where readers can leave donations, either through PayPal or another online payment source. Premium content, which readers must pay for, is a source of income for about one in five money-earning bloggers.

Most expect to be blogging a year from now.

Despite its relatively minor importance in the lives of most bloggers, blogging is still an important enough part of their lives that eight out of ten (82%) of bloggers think they will still be blogging a year from now. One in ten bloggers (11%) say they will not, 3% say they have already stopped, and 4% say they are not sure if they will still be blogging in a year.

Bloggers with broadband at home are more likely than those with dial-up connections to say they will continue blogging into next year. Not surprisingly, long-time bloggers are more likely than newcomers to say they will continue, as are bloggers who maintain two or more blogs. Bloggers who say they write mostly for an audience are more likely than those who write mostly for themselves to say they will still be blogging a year from now.

Part 5.

Audience

Despite a blogger's often private sense of the nature of his or her blog, the act of keeping a blog (unless password protected or otherwise locked down) is an inherently public act. Blogs are generally kept so that they may be read by others, yet the audience of a particular blog is technically nearly impossible to measure. While Web servers have traditionally collected information about who or what visits them, in this day and age of RSS feeds, many blog readers who might have been counted by server or site traffic logs are now obscured behind the single visit of an RSS feed reader's URL or IP address.

But we do have a good idea of the size of the general blog-reading population. In February 2004, the Pew Internet Project added a question to our internet activity survey: "Do you ever read someone else's web log or blog?" At that time, 17% of internet users said yes. Since then, the percentage of blog readers has increased to 39% of internet users, or about 57 million American adults.¹¹

"RSS" – most often thought to stand for "Really Simple Syndication." An RSS feed enables a "feed reader" or aggregator to periodically check particular spots on the Web for new content, pulling that content into one central location for easier reading.

A blogger can gain a sense of audience composition through "on-blog" or "off-blog" means. On-blog measurements include site traffic logs¹² as well as commenting and tagboarding functions where a reader of a blog can post feedback. A comment is generally a response to a specific post, whereas a tagboard is a general space for commenting on the entire blog or website. Off-blog mentions occur outside of the blog and include hearing from someone—in conversation, on the phone, via email or IM—that they read your blog. Readership may also be suggested—though not necessarily guaranteed—by the linking from one blog to another on a blogroll (or list of links to other blogs generally found in the sidebar of a blogpage).

"Blogroll" – a list of links to other blogs generally found in a blog's sidebar¹³

¹¹ Based on January 2006 and February-April 2006 survey data.

¹² This assumes the software the blogger uses provides site traffic logs or that a secondary counting application has been installed, which is often not the case.

¹³ For some bloggers, a different term is used to refer to a list of links to other blogs. For example, with LiveJournal, the list of links is titled "Friends" and may appear on a separate internal page, often with biographical information about the blogger. On Xanga, the same list is called "subscriptions," and appears on the side of the main blog page.

Given the fact that many types of simple blogging software do not incorporate traffic statistics into their blogging packages, it is not surprising that nearly half of the bloggers in our sample (47%) say they do not know their traffic statistics. One in five bloggers (22%) say they have fewer than ten hits a day in blog traffic, and 17% say they have 10 to 99 hits on a typical day. Just 13% have more than 100 hits a day, though a handful in this group has much larger traffic levels.

Of the bloggers who do know their traffic, male bloggers in our sample are more likely to report higher average levels of traffic. The 10 highest self-reports of blog traffic were all by male bloggers.¹⁴

Most bloggers post material for themselves, but one-third blog mostly to engage their audience.

When asked whether they blogged for themselves or for their audience, more than half of bloggers (52%) responded that they blog for themselves. About a third (32%) of bloggers blog mostly to entertain or engage their audience, and another 14% volunteered that they blogged for both themselves and their audience equally. About one percent say that neither personal motivation nor the idea of an audience motivated them.

Many bloggers who say they blog “for themselves” truly do—these bloggers report lower numbers of daily hits than other bloggers.

Blogs gain attention, if only at a personal level.

We asked bloggers what kind of attention they had received for their blog and from whom. Most frequently, bloggers received attention from other bloggers, either through exchanges of links or discussions proceeding from postings and their responses, either via comments or on other blogs. Nearly 60% of bloggers had been noticed by other bloggers. Young bloggers (age 18-29) were most likely to say that they had received this kind of attention. About half of bloggers (52%) report that their blog has been noticed by family members. Parents of children under age 18 living at home were more likely than those without children at home to say that they had had blog recognition by a family member.

Work colleagues, coworkers and bosses were another source of comment or recognition of a blog (though whether the recognition was positive or negative was not asked), with a bit more than a third (35%) of all bloggers hearing mention of their blog from this group. Another 20% of bloggers have received attention for their blog from members of their local community.

¹⁴ A further complication to fully understanding blog traffic--the term “hit” used in the survey question is one which can have a variety of meanings depending on the Web traffic software that a blogger uses, and does not generally represent individual unique visitors to a Web server or site.

Precious few bloggers achieve the kind of attention – very public, and perhaps nationally or internationally influential – that may come from political figures or the news media. Just 10% of bloggers have received attention from public officials, political campaigns or politicians. Nine percent of bloggers have had their blog mentioned by the news media.

In many ways it is not surprising that so few blogs have achieved major recognition politically or in the media. As Clay Shirky points out in his essay, *Power Laws, Weblogs and Inequality*,¹⁵ traffic to blogs builds unevenly, and those who garnered traffic early in the history of blogging for whatever reason will tend to continue to gain traffic over time, while newer blogs will have a harder time earning the same amount of traffic.

Half of bloggers believe their audience is mostly people they know.

Even in the absence of a reliable way to measure their blog traffic, about half of bloggers (49%) believe that their blog readership is mostly made up of people they personally know. Another third of bloggers (35%) believe that their readers are mostly people they have never met. About one in seven (14%) of bloggers say that their readership is a mix of personal friends, family and colleagues as well as people they have never met. Just 3% of bloggers say they do not have a clue as to who reads their blog.

Female bloggers and younger bloggers (age 18-29) are more likely than men or other age groups to say that mostly people they know personally read their blog. People whose blogs are read mostly by strangers are generally male, age 50 or older, and live in higher-income households.

Blog writers are enthusiastic blog readers.

Fully 90% of bloggers say they have read someone else's blog, compared with 39% of all internet users who say they have done so.

Bloggers who read other people's blogs are likely to check in at least a few times per week: 19% read someone else's blog several times a day; 16% do so about once a day; and 16% do so three to five days per week. One in five bloggers who read other blogs say they do so every couple of days. The rest (28%) of blog-reading bloggers say they do so every few weeks or less.

Frequent updates to one's own blog seem to beget frequent reading of others' material. Bloggers who post new material at least once a day are the most likely group to check on other blogs on a daily basis – 61% of daily bloggers say they do so, compared with 16% of bloggers who post weekly.

¹⁵ Shirky, Clay (2003) *Power Laws, Weblogs and Inequality*.
http://www.shirky.com/writings/powerlaw_weblog.html

Bloggers who say their blog is very important to them are more likely than other bloggers to read someone else's blog several times per day and to post comments.

Nearly nine in ten bloggers allow comments to be posted on their blog.

Commenting functions on blogs allow readers to post text responses to specific posts that the author has written. Comments can create a discussion, a place for feedback or provide a sense of community for both the author and his readers as well as serve as a way to get a sense of the number of active readers. On most blogs, the reader clicks on the comments link below an entry to both read the comments that others have left and to leave a comment themselves via a text box. Commenting functions are found on most blogs, but not all. Fully 87% of bloggers in our sample allow comments on their blogs; only 13% do not allow them. Younger bloggers are more likely than other age groups to allow comments on their blog. Fully 94% of bloggers age 18-29 allow comments, compared with 84% of bloggers age 30-49 and 69% of bloggers age 50-64.

Eighty-two percent of bloggers say they have posted a comment to someone else's blog. While male bloggers are more likely than female bloggers to not only check in on other blogs, but to do so several times a day, male bloggers are not significantly more likely than female bloggers to post comments. Bloggers with broadband at home are more likely than those with dial-up to say they read other blogs and are also more likely to post comments. Bloggers who are part of a multiple-author blog are no more likely than single-author bloggers to read someone else's blog, but they are more likely to post comments (91% vs. 78%).

Four in ten bloggers have a blogroll and most keep the list to under 50 blogs.

Another way to ascertain readership is through blogrolls or friend lists, which list links to other blogs.¹⁶ Two in five bloggers (41%) keep a blogroll on their blog, while 57% say they do not provide such a list. Bloggers who post new material daily are more likely to have a blogroll (70% vs. 30%).

Of those who have a blogroll, the largest percentage of bloggers have fewer than ten blogs on their blogroll. Nearly 43% of bloggers have fewer than 10 blogs listed on their blogroll. Another 29% say they have between 10 and 49 blogs on their link list and 18% have 50 or more links listed. Bloggers age 18 to 29 are more likely than older bloggers to have larger link lists.

¹⁶ Though as Amanda Lenhart has suggested in an academic paper on this topic, the mere fact of a blog being listed on a blogroll does not guarantee that the blog owner doing the listing is actually reading the blog listed. See Lenhart, Amanda. (2005) *Unstable Texts: An ethnographic look at how bloggers and their audience negotiate self-presentation, authenticity and norm formation*. Masters Thesis, Georgetown University. http://lenhart.flashesofpanic.com/Lenhart_thesis.pdf

A bit under half of all bloggers say their blog is listed on the blogroll of someone else. About 46% of bloggers say their blog is on someone else's roll, 34% say their blog is not listed elsewhere. Another one in five bloggers (20%) say they do not know whether their blog appears on another blogroll or not. Younger bloggers are more likely to say that their blog is listed on someone else's roll, as are bloggers who post material daily (78%), or who are members of multi-author blogs (57%).

Of bloggers who know that a link to their blog appears on someone else's blogroll, the largest group – 29% – say that 10 to 49 other blogs link back to them. Another quarter (27%) say that fewer than ten others link to their blog, and 19% say that more than 50 bloggers link to their blog. Another quarter say they do not know how many others link to them.

Few offer an RSS feed, possibly because many bloggers are not aware of the technology.

Bloggers were among the pioneers of RSS feeds, streamlining the users' experience by allowing them to interact with fresh content in one central clearinghouse instead of having to visit blog after blog. Still, RSS does not have a strong presence yet, even within the blogosphere. Only 18% of bloggers in our survey say they offered an RSS feed of their blog. Nearly 6 in 10 (59%) say they do not have an RSS feed for their blog content, and close to another quarter (23%) say they do not know if they had a feed, or did not answer the question. It is worth noting that bloggers are not behind the curve when it comes to this new technology. In a general internet-user survey conducted in May-June 2005 only 9% of internet users said they have a good idea of the meaning of the term "RSS feeds."

Part 6.

Bloggers by the Numbers

Bite-size chunks of survey data.

Bloggers by the Millions	
Number of American adults who use the internet	147 million
Number of American adults who read blogs	57 million
Number of American adults who keep a blog	12 million

Source: Pew Internet & American Life Project Surveys. January 2006; Feb-April 2006; Nov-Dec 2005 and Feb-April 2006.

See You Next Year	
Percentage of bloggers who have been blogging for less than one year	51%
Percentage of bloggers who think they will still be blogging a year from now	82

Source: Pew Internet & American Life Project Blogger Callback Survey, July 2005-February 2006. Margin of error is $\pm 7\%$.

Bloggers Have a Lot to Say	
Percentage of internet users who use instant messaging	37%
Percentage of bloggers who use instant messaging	78
Percentage of internet users who text message on a cell phone	35
Percentage of bloggers who text message on a cell phone	55
Percentage of internet users who read someone else's blog	39
Percentage of bloggers who read someone else's blog	90
Percentage of internet users who remix songs, text, or images into new creations	18
Percentage of bloggers who remix songs, text, or images into new creations	44
Percentage of internet users who share their own artwork, photos, stories, or videos online	26
Percentage of bloggers who share their own artwork, photos, stories, or videos online	77

Source: Pew Internet & American Life Project Surveys. Internet user data is based on surveys conducted in January 2005, September 2005, Nov-Dec 2005, and January 2006. Blogger Callback Survey July 2005-February 2006.

A Comparison of All American Adults and Bloggers	
Percentage of all American adults with a college degree	27%
Percentage of bloggers with a college degree	37
Percentage of all American adults who are knowledge-based professional workers	13
Percentage of bloggers who are knowledge-based professional workers	38
Percentage of all American adults who are students, either full- or part-time	16
Percentage of all bloggers who are students, either full- or part-time	38

Source: Pew Internet & American Life Project Surveys. Education data for all Americans is from Feb-April 2006; margin of error is $\pm 2\%$. Employment data for all Americans is from Feb-March 2004; margin of error is $\pm 2\%$. Blogger data is from the Blogger Callback Survey, July 2005-February 2006; margin of error is $\pm 7\%$.

Methodology

The Blogger Callback Survey, sponsored by the Pew Internet and American Life Project (PIALP), conducted telephone interviews with 233 self-identified bloggers from previous surveys conducted for PIALP. The interviews were conducted in English by Princeton Data Source, LLC, from July 5, 2005 to February 17, 2006. Statistical results are weighted to correct known demographic discrepancies. The margin of sampling error for the complete set of weighted data is $\pm 6.7\%$.

The low number of respondents is a significant limitation to this study.

It is important to note some limitations to this callback survey of bloggers. First, the survey is a callback study, which means that it inherently has some bias in that not everyone that we reached in a random sample is willing to take another survey. In addition, a relatively large number of people who told us in an earlier survey that they kept a blog or online journal said in this survey that they were not currently doing this. As a result, this survey has a response rate of 71% and a relatively low “n” or number of respondents, which can make it difficult to do complex analyses of the data with a high degree of certainty. Also, because of the difficulty of finding bloggers to talk to, the survey was conducted over a long period of time, which means that the blogosphere may have changed over the period of time that we were asking our questions.

In addition, some of the question wording in the survey may have used terms to describe elements of a blog that are different from the terms that some bloggers use. For example, a blogroll is also sometimes called a friends list or a subscription list. The term “hits” used to ask bloggers about their traffic has inconsistent meaning across software packages and thus may not accurately measure traffic to a particular weblog.

Respondents who keep a blog were eligible for the callback survey.

Sample for this survey was collected from several recent PIAL general population surveys.¹⁷ All respondents who said they kept their own blogs were eligible for this callback survey. Sample for the original surveys was drawn using standard list-assisted random digit dialing (RDD) methodology.

Interviews were conducted from July 5, 2005, to February 17, 2006. As many as 10 attempts were made to contact every sampled telephone number. Calls were staggered over times of day and days of the week to maximize the chance of making contact with

¹⁷ The survey used for callback sample were: February 2004 and 2005 Tracking Surveys; November 2004 Tracking; November Activity Tracking; January 2005 Tracking; September 2005 Tracking; the Exploratorium Survey; Nov/Dec 2005 Tracking Survey; the Spyware Survey; and PSRAI's Demographic Tracking Survey.

potential respondents. Each household received at least one daytime call in an attempt to find someone at home.

Weighting was used to approximate the demographic characteristics of the national population.

Weighting is generally used in survey analysis to compensate for patterns of nonresponse that might bias results. The interviewed sample of all bloggers was weighted to match parameters for sex, age, education, race, Hispanic origin, and region. These parameters were defined as the weighted demographics of all self-identified bloggers from the general population surveys from which callback sample was garnered. Table 1 compares weighted and unweighted sample distributions to population parameters.

Weighting was accomplished using Sample Balancing, a special iterative sample weighting program that simultaneously balances the distributions of all variables using a statistical technique called the Deming Algorithm. Weights were trimmed to prevent individual interviews from having too much influence on the final results. The use of these weights in statistical analysis ensures that the demographic characteristics of the sample closely approximate the demographic characteristics of the national population.

Additional national telephone surveys were used to capture an up-to-date estimate of the percentage of internet users who are currently blogging.

Random-digit telephone surveys conducted by Princeton Survey Research Associates International in two waves (November 29 to December 31, 2005, and February 15 to April 6, 2006) yielded a sample of 7,012 adults. The demographic information for internet users and bloggers listed in this report are derived from those large-scale surveys. For results based on internet users (n=4,753), the margin of sampling error is plus or minus 3 percentage points. For results based on bloggers (n=308), the margin of sampling error is plus or minus 7 percentage points.

Further details about survey methodology are available in the questionnaire associated with this report, available at: <http://www.pewinternet.org/>

PROTECTING CONSUMERS IN The Next Tech-ade

:Tech-ade Blog

« [The FTC Provides an Opportunity to Ask the Experts!](#)

[A Survey of Corporate Blogs](#) »

Filing a Complaint at the FTC

Posted on [Friday 13 October 2006](#)

We recently had a comment on the blog that asked for information on how to file a complaint and the process that occurs when a complaint is filed. There are a few ways consumers can file complaints with the FTC. Consumers wishing to file a complaint online may do so at anytime by selecting the 'file a complaint' link located at the top of the Tech-ade Blog or by visiting ftc.gov.

Consumers may also contact the FTC by calling one of our toll-free lines to file a complaint or request educational material. For general fraud complaints consumers may call (877) FTC-HELP. Consumers wishing to report an incident involving identity theft may call (877) ID-THEFT. Consumer Information Specialists are available to answer calls, Monday through Friday from 9 a.m. - 8 p.m. EST. The toll free lines also offer automated answers to frequently asked questions about how to protect against fraud or identity theft and an automated brochure request system 24 hours a day, 7 days a week.

The information provided by consumers is entered into the FTC's secure database. The information may be shared with thousands of other Federal, State, and local law enforcement agencies for the purpose of protecting consumers. Although the FTC does not act on behalf of individuals, consumer furnished information is essential in aiding the FTC in detecting instances of violations of the law.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Michael Webster

October 18, 2006 | [4:16 pm](#)

The difficulty people have in making complaints is in part because they don't realize that there is disclosure law for the selling of distributorships and business opportunities.

The complaint process should isolate the elements of the business being complained about so that it is easier for the complainant to make the correct type of complaint.

Suzi Enders

July 11, 2007 | 9:57 pm

Easier said than done. Since all consumers do not have the same understanding, it makes a blanket complaint difficult for some and a breeze for others. We can only hope that plenty of help is ready to assist them in their complaint process. As a Realtor, I deal with public daily, it is my opinion that complaints can be resolved most easily with communication. Yes, there are sharks out there but if we all participate in the consumer protection process, it makes shark infested waters a little easier to swim in. Thank you

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PROTECTING CONSUMERS IN The Next Tech-ade

:Tech-ade Blog

« [The FTC Invites Proposals for Tech Pavilion Participants](#)

[Filing a Complaint at the FTC](#) »

The FTC Provides an Opportunity to Ask the Experts!

Posted on [Thursday 12 October 2006](#)

Next week, Richard Gingras, CEO of Goodmail Systems, and Fran Maier, Executive Director of TRUSTe, will be answering questions about authentication issues. Goodmail is an email authentication service that certifies companies with legitimate email practices, and TRUSTe is an organization that provides a seal of website authentication to reliable companies. Authentication, which involves verifying the digital identity of a user, has become a crucial component to keeping the web safe and secure as a global marketplace. These experts can answer your questions about ways in which private organizations are working to fight spam and identity theft online and can help you learn more about the growing use of trusted web-names to accredit online business.

To participate in this exciting online discussion, please submit your question(s) to the comments section underneath this entry by October 17th, 2006, or email them to techhearings@ftc.gov. Then check back here the week of October 23rd when Richard Gingras and Fran Maier's answers will be posted! This Q&A gives you a chance to connect with experts of the next Tech-ade and ask them about developments in their fields. This is the first of several planned "ask the experts" sessions that will be posted on the blog in the coming weeks.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Bill Silverstein

October 13, 2006 | [1:48 pm](#)

Authentification is fine for web sites where you are transacting business.
Authentification for email is useless. This would require each individual email user to go through the expense to validate their personal emails.

The law MUST require ALL spam be labelled as spam.

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PROTECTING CONSUMERS IN The Next Tech-ade

:Tech-ade Blog

« [Welcome to the FTC Tech-ade blog!](#) [The FTC Provides an Opportunity to Ask the Experts!](#) »

The FTC Invites Proposals for Tech Pavilion Participants

Posted on [Friday 6 October 2006](#)

Help deepen the FTC's understanding of likely developments in consumers' core experiences in the next ten years! As part of the Tech-ade hearings, the FTC is organizing a technology and new product pavilion in order to bring participants in contact with the cutting edge products and services of the next Tech-ade, many of which will be discussed during the hearings. We are currently accepting proposals for the showcase and invite you, the public, to help us out. Please e-mail any proposals to techhearings@ftc.gov. Submissions must be received by October 13th in order to be considered.

Please note that the Tech Pavilion will not be an opportunity to sell products. Instead, we are interested in presenting a range of products or services that will demonstrate the benefits of various technologies that may be available currently or in the future. In the event that requests for participating in the Tech Pavilion exceed space limitations, we will select those technologies that we believe are most relevant to the conference presentations.

Like the hearings, the pavilion will be open to the public, including the George Washington University student body, and will bring to life the many dynamic topics that will be discussed at the hearings. The pavilion will be located in the Cloyd Heck Marvin Student Center just across the street from the hearings and will be open from 9 am to 5:30 pm on November 6-8th.

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

Bill

October 6, 2006 | [10:44 am](#)

Thanks, this is great!

Michael Webster

October 11, 2006 | [2:13 pm](#)

Do you intend to stop this blog after November?

FTC Blogger

October 11, 2006 | [4:48 pm](#)

Thank you for your interest in the Tech-ade blog. We expect that the blog will remain active for some time after the hearings conclude. As part of the process of wrapping up the Tech-ade hearings, we may post entries to follow up on interesting issues that were raised during the event. We also encourage members of the public to submit comments with their thoughts on the hearings.

Mark

October 12, 2006 | [9:52 am](#)

What is the RSS feed address for the main blog?

FTC Blogger

October 12, 2006 | [10:18 am](#)

Thanks for your question, Mark. The RSS feed link for the Tech-ade blog is <http://ftcchat.us/blog/?feed=rss>. We have now added this to our Links sidebar on the blog home page.

LashBack

October 12, 2006 | [10:32 am](#)

We applaud the FTC for getting a blog up. The more you participate in technology, the deeper your understanding of what industry and consumers deal with. Thanks for taking the leap.

LongUSA

October 12, 2006 | [12:37 pm](#)

How do I start a new thread?

FTC Blogger

October 12, 2006 | [1:06 pm](#)

Good question, LongUSA. The Tech-ade blog is not set up to allow members of the public to create their own posts. However, if there is a topic that you would like us to address in the blog, you are welcome to submit a question or comment and the FTC Blogger may respond. If you prefer to send us an email, feel free to write to us at techhearings@ftc.gov.

/pd

October 12, 2006 | 2:36 pm

This is a great step for your guys.. even comment turned on .. way to go !!

I would like you to blog about "how to file a compliant" and the process that occur when a compliant is filed

Andrei

October 12, 2006 | 5:35 pm

Good job, our american friends! Please tell your russian colleagues do the same. We really need it!

John

October 17, 2006 | 1:23 pm

Is Tech-ade open to the general public?

FTC Blogger

October 17, 2006 | 1:54 pm

Hi John. The Tech-ade Hearings are, indeed, free and open to the public. Check out the webpage for more information about attending in person, or watching via webcast: <http://www.ftc.gov/bcp/workshops/techade/participate.html>. Hope to see you there!

Andrew

October 18, 2006 | 10:27 am

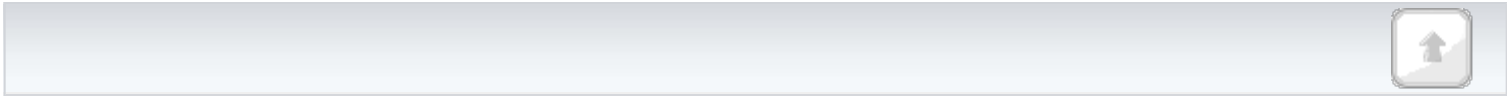
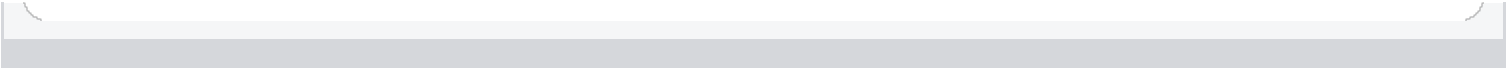
This is great. Who will be exhibiting at this show? Will there be exhibiting at this show?

FTC Blogger

November 13, 2006 | 4:48 pm

Thanks for your question, Andrew. There will be exhibiting at the Tech Pavilion. More information is available at <http://www.ftc.gov/bcp/workshops/techade/pavilion.html>.

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PROTECTING CONSUMERS IN The Next Tech-ade

:Tech-ade Blog

[The FTC Invites Proposals for Tech Pavilion Participants »](#)

Welcome to the FTC Tech-ade blog!

Posted on [Thursday 5 October 2006](#)

Hello and welcome to the Tech-ade blog! This blog represents a new effort on the part of the Federal Trade Commission to communicate with the public in anticipation of our public hearings, “[Protecting Consumers in the Next Tech-ade](#),” which will take place November 6-8 at The George Washington University Lisner Auditorium in Washington, D.C. The staff of the FTC’s Bureau of Consumer Protection has organized the “Tech-ade” hearings to educate ourselves about likely changes that will affect the consumer marketplace over the next decade. We have asked over one hundred experts in the fields of technology, marketing, advertising, product development, finance, and related fields to speak at the hearings. The hearings are free, open to the public, and will be webcast.

I am a recent college graduate and a member of the FTC’s Honors Paralegal Program in the Bureau of Consumer Protection and will be the main blogger leading up to and during the Tech-ade hearings. I will be posting interviews with experts who can help illuminate not only the changes anticipated over the next ten years in demographics, business practices, and technology, but also the impact these changes will have on American consumers. From time to time, guest bloggers may also be featured.

For the novices out there, let me give a brief explanation of a blog, or web log. Designed like a diary or “log” and laid out in reverse chronological order, blogs have become increasingly widespread throughout the World Wide Web as a means for an organization or—even more commonly—a single person, to communicate regularly with a mass and often anonymous audience about anything from developments in one’s personal life to developments in politics or in an industry. Some say that the blog—with its ability to cheaply and easily bring the opinions of one person to a mass audience—has revolutionized communications in the last five years, further building on the potential wide-scale usefulness of the Internet.

The blog format is particularly appropriate for the FTC Tech-ade hearings for a number of reasons. First, it complements and supplements the hearings by covering areas and providing interviews that cannot be showcased at the live event. It also enables us to keep the public updated on what to expect from the hearings and allows us to bring information to a wider audience than will be present at the actual event in November. Finally, our use of the blog is a way for the agency to experiment first hand with a communications tool that has grown in popularity over the past few years and may well become even more prevalent in the next Tech-ade.

I want to welcome you and encourage you to express your opinions and ask questions about the

issues covered in the Tech-ade blog!

Disclaimer: The views expressed in this blog are those of the blog authors. They do not necessarily represent the views of the Federal Trade Commission or any individual Commissioner.

bourbaki

October 12, 2006 | [2:31 pm](#)

How can one take seriously any part of one's government which refers to its citizens merely as "consumers?"

FTC Blogger

October 14, 2006 | [12:32 pm](#)

Thank you for your comment, bourbaki. We use the word "consumers" to define the FTC's constituency given the mandate for the Bureau of Consumer Protection: to protect consumers against unfair and deceptive practices in the marketplace. We define a consumer as a person who buys a product or service for personal use. The word emphasizes the aspect of being a person that is most relevant to our specific mission (consumer protection), just as other agencies may focus on "travelers" or "students." It is not meant as a substitute for the word citizen.

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